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BUFFALO

Medical and Surgical Journal

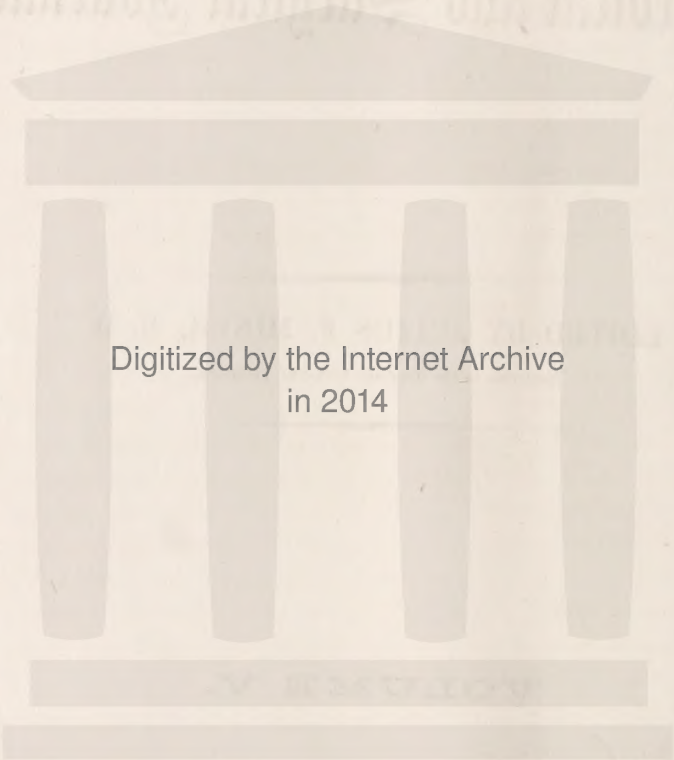
EDITED BY JULIUS F. MINER, M. D.

Surgeon to the Buffalo General Hospital.

VOLUME V.

BUFFALO:
JOSEPH WARREN & Co., PRINTERS, COURIER OFFICE, WASHINGTON ST.

1866.



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BUFFALO
Medical and Surgical Journal.

VOL. V. AUGUST, 1865. No. 1.

ART. I.—*Transactions of the Medical Society of the County of Kings.*

QUARTERLY MEETING, OCTOBER, 1864.

Cancer.

Dr. Hutchison presented a specimen of *malignant disease* of the breast, with the following history: "Mary Ann Daly, aged 38, born in Ireland, sixteen years in this country, married—no children—one miscarriage five years ago. About a year ago the left breast was struck; two or three months afterwards she noticed a hardness in the breast, retraction of the nipple, and induration of the axillary glands of the same side. The induration, when first noticed, was about the same size as at present. There was no discoloration of the integument until about four months ago. About three weeks since, by advice of a druggist, she applied a poultice, which was followed by an ulcer about the size of the thumb-nail, and surrounded by a ring of discolored integument. The glands in the axilla were enlarged to about the size of the end of a man's thumb. The pain in the breast has been sharp, quite severe at times, and again absent for about a week at a time. Thinks she had more pain at night."

The diseased mass was removed in the usual way—no blood vessels had to be tied, a circumstance he had also noticed, where the *tumor* was *enucleated.* The axillary glands were also removed, as they were very much involved. The specimen presents all the *physical* as well as the *clinical characteristics* of cancerous disease. The *flaps* were drawn together by the *continuous silver suture.*

Dr. Enos referred to the difference between *benign* and *malignant* tumors, and enumerated the different diagnostic symptoms. In reference to his own case, he stated that the tumor was not grow-

15168

ing very quickly, but was the cause of a great deal of trouble and mental anxiety. He thought it advisable, therefore, to remove it. Did not think it would degenerate into malignant disease.

Dr. Clark remarked that he did not place much dependence upon the *cachectic* appearance of the patients in these cases.

Polypus.

Dr. Colgan presented a specimen of *polypus uteri.* The patient had called some time ago, at his office, and complained of obstinate vomiting, and stated that for the last two or three years she had had frequent hemorrhages from the vagina. Would not submit to an examination, and medication seemed to have no control over the vomiting. Shortly afterwards she gave birth to a seven months' child, and it was during labor that this polypus was discovered, arising from the cervix. In the course of ten or twelve days a ligature was applied, and the mass came away in two days afterwards.

He was sent for again some time afterwards, and found that she could not make water. On examination found a calculus in the urethra.

Tuberculosis of the Testicles.

Dr. Bartlett presented the testicles removed from a patient on the 8th of October, 1864. Four years ago he had gonorrhœa, with more or less inflammation of the testicle. From this, however, as he thought, he had recovered. About two years ago he injured the testicles, and inflammation set in, commencing in the epididymis. From this he never recovered, and after undergoing treatment in several places, he at last found his way into the Kings County Hospital. The testicles were found to be very large and painful, and the scrotum, on the right side, one mass of ulceration. Their removal was determined upon, and the operation was performed by laying the scrotum open, and tying the whole cord. The epididymis, on the right side, was entirely gone, and the seminiferous tubes were filled with tuberculous matter. No spermatozoa were found. In the left testicle, however, some were found, but the greater part of its substance was a mass of tuberculous matter. In the right testicle, the tunica vaginalis was everywhere adherent, and had to be dissected out.

In reply to a question the Doctor stated, that the cord was so short, in consequence of the swelling, that he concluded to tie the whole of it. The contents of the cord were perfectly healthy. Under the microscope the diseased mass of both testicles was found to consist of the tubes of the testicles, increased to double their normal diameter, and filled with the *granular, amorphous matter,* and *shrivelled, granular nuclei,* characteristic of tubercle. The Doctor supposed that the patient, when he had gonorrhœa, had epididymitis only on the right side, and that after the disease had subsided, the testicle remained enlarged and sensitive.

MONTHLY MEETING, DECEMBER, 1864.

Specimens by Dr. S. F. Speir.

Dr. Speir presented a specimen of *diverticulum from the pericardium.*

The patient was a female, and had been complaining for several years of palpitation of the heart. She died of bronchitis.

On post mortem found the layer of the pericardium absent at the place of diverticulum. There was an arrest of development at this point, and when the fluid accumulated there, expansion took place, and this *diverticulum* was formed. The pericardium was distended with fluid, and the diverticulum extended into the left pleural cavity.

Atrophy of the Heart.

In this case, all portions of the body were atrophied ; the heart weighed only four and a half ounces, the natural standard being ten ounces. There was no deposit of fat between the muscular fibres.

Pyomia.

The subject of this specimen was a man of intemperate habits. Dr. Minor amputated the leg above the knee; pyomia set in, and the patient died. The principal vein leading from the stomach was occupied by *clots,* some portions of them being surrounded by purulent looking matter. Phlebitis was not apparent. Under the microscope this *matter* was found not to be *pus,* but broken down *fibrinous matter, blood corpuscles,* etc. The *lungs and spleen* were

tuberculous; in the *liver* was an abscess, which turned out to be tuberculous.

Dr. Enos supposed that the portion of the *clot*, in the case of pyomia just related, was owing to some want of vitality in the blood.

Polypus of the Womb.

Dr. Hart report a case of polypus of the womb. About six weeks ago he was consulted by a lady, 50 years of age, who was suffering from *uterine hemorrhage*, which was some times considerable, but not at any time profuse. She was married, had never been pregnant, and for the last two years had not menstruated. Her health was perfect; appetite good; slept well, and nervous system in good order. At intervals she was troubled with leucorrhœa, and subject to a serious discharge from the vagina.—Ordered a vaginal injection of tannic acid, and administered iron internally, but the remedies did not produce any benefit. About two weeks ago she noticed a small fibrinous mass come away. A few days afterwards she was seized with expulsive pains, which on the following morning became very severe, and continued for two or three hours, when a substance was thrown off, the pains subsiding immediately thereafter, About five days ago she was again seized with pain, and passed the present substance, which Dr. Speir pronounces polypus.

Dr. Speir stated that the tumor was composed of cells and corpuscles, and was undergoing fatty degeneration.

REGULAR MEETINGS, MARCH AND JUNE, 1865.

Action of Medicines on the Blood-Vessels. By R. Cresson Stiles, M. D.

The following experimental researches were undertaken with the desire of extending, as far as possible, the influence of the anatominal generalizations of Bichat and the discoveries of modern histologists into the domain of practical medicine. The field of research was chosen as near as possible to that of practical medicine, in order that the results of experiment might be controlled by the experience of numerous observers among practitioners,

instead of affording interest to the professed cultivators of abstract physiology merely, whose numbers are few, and with the tendency of whose pursuits whatever there is of magisterial influence and of practical conservatism in medical authority has but limited sympathy. Physiology is not far in advance of the position which chemistry held before the time of Lavoisier, but the movement which is drawing within the domain of the *Science of Vital Dynamics* the dependent science of Pathology, (dependent, if legitimate scientific dependence exist at all,) which leads the physician to seek in diseases the affections of an organism re-acting in accordance with definite laws, rather than entities whose slightest variations in form and shade, in flying clouds of symptoms, are to be depicted in endless and useless detail, must affect also the classification and employment of therapeutic agents.

The several tissues of the body manifest varied and delicate differences of re-action to the agents employed in their study. These differences, due to molecular constitution, they doubtless possessed, with others of still greater delicacy, while forming a part of the living organism, rendering them subject to the variations of nutrition or function, which are the essential elements in all medicinal action. The influence of sulpho-cyanide of potassium and of upas upon the voluntary muscles, that of strychnine upon the afferent nerves, and that of wourara upon the motor nerves, give proof of relations subsisting between these substances and tissues respectively which other tissues do not share, or in which they participate to but a slight extent. The power of carbonic oxide gas to paralyze the blood corpuscles, rendering them inert in hæmatosis, and that of a temperature of 115° Fahrenheit to paralyze and make rigid the voluntary muscles, while the same temperature leaves the motor nerves intact, lend further proof of the independent vital re-actions of the different anatomical elements of the body. That these relations should be more familiar to physiologists than to practitioners is simply because they have been studied by the former; that many of the most familiar and useful articles of the materia medica have like relations I propose to show. Similar considerations are applicable to the generation of diseases. The development of the Trichina Spiralis in the striated muscles exclusively, its presence ceasing, as I have seen it, with the

upper third of the œsophagus, leaving the remainder of an apparently homogeneous canal uninfested, is a type of the mode in which other less vitalized morbific agents seek out certain tissues of particular physical or molecular constitution upon which to exert their activity.

Some of the most valuable revelations of experimental physiology have resulted from the study of the nervous system. The demonstration of the separate motor and sensory endowments of the anterior and posterior spinal nerves by Bell and Magendie, the determination of the powers of the principal centres of the cerebro-spinal system by Marshall Hall, Flourens and Longet, the recognition of the influence of the sympathetic upon nutrition, calorification, secretion, and the activity of the nervous centers by Bernard and Brown-Séquard, are examples of what has been accomplished in this field of research. It is characteristic of the nervous system, that its functional activity is brought into play by the simplest physical influences, rendering it particularly suited to experimental investigation. To the student of experimental physiology, or to the pathological anatomist, the fact cannot fail to present itself, that the office of the nervous system is rather of a passive nature, serving to call into action and regulate processes of far greater independence; both are led to regard the nervous system as an instrument whose wonderful harmonies are evoked by the play of forces external to itself. Not only has experiment shown that in death from inanition, while the blood loses over seven-tenths of its weight, and the muscles over four-tenths, the loss of the nervous system is less than one-fiftieth; but when we witness on post-mortem examinations the almost uniform complete integrity of the nervous system amid the wreck of other systems and the waste and decay of the rest of the body, and after death accompanied with the most violent nervous commotions, we are forced to regard the nervous system as an instrument of sluggish nutritive changes, rather acted upon by the blood and the organs which it supplies, than itself generating its own forces and possessing the active nutrition necessary to such manifestations of energy. The nervous system has too long given sanctuary to all manner of fugitives from physiological law.

Except from our own individual sensations, we know nothing of

nervous action but by muscular action, and it becomes exceedingly important therefore to determine whether the nervous system is not merely one of the instruments through which muscular activity is aroused, or whether physical and chemical agents do not exercise a direct and immediate influence upon muscular tissue through the medium of the blood.

Both Harvey and Haller denied the irritability or muscular contractility of the arteries. The contractile phenomena presented by the blood-vessels were believed by Bichat to be due to *tonicity*, an endowment different altogether from muscular contractility. "Respecting the final arterial ramifications," says Magendie, in 1822, "as the vessels which constitute them are so small as to be invisible, at least in a state of health, no one can either affirm or deny that they are irritable. It would follow from analogy, however, that they have no sensible movement. In cold-blooded animals, it is easy to see the blood circulating in these vessels, and even passing into the veins, but these same vessels give no sign of contraction." These views, thus attested, may be considered as those of the profession generally, till completely reversed by the revelations of the microscope. Since the discovery of the elements of the non-striated muscular tissue or fiber-cells by Kölliker, in 1847, and their recognition in the arteries and arterioles, the question has been set completely at rest. Numerous experimenters have studied the influence of mechanical irritation, of galvanism, of heat and cold, and of various medicinal substances upon the caliber of the vessels, and the rapidity of the circulation in the transparent tissues of the lower animals. The most real and decided of the recent triumphs of experimental physiology have been the result of researches upon the influence of the nervous system upon the circulation, as regulated by the muscular tissue of the blood-vessels, placing under the control of the experimenter the functional activity of various organs, and enabling him to produce at will the fundamental pathological phenomena of inflammation, hypertrophy, atrophy, and degeneration. But it is impossible to resolve these results into their elements. The solution of the simplest physiological problem is rendered difficult by the complexity of the conditions under which it is presented. Our present problem is to determine the influence of certain agents

upon the living muscular tissue of the blood-vessels, so as to be able to assign to this influence the part it plays in the involved phenomena of the action of these agents when used as remedies, or otherwise acting upon the human system; or, given a medicinal article, to determine whether, when brought into contact with the muscular tissue of a living artery, it produces its contraction, relaxation, paralysis, or a succession of these states; in what proportions used, and under what conditions these effects may be looked for with certainty. A step only towards its solution is still a step in advance.

The earliest and simplest observations made in this direction were on the obvious effects of cold and hæmostatic applications. By such observations, and by experiment, Hunter distinguished the elasticity of the arteries from their contractility, and recognized the persistence of the endowment of irritability long after death. He divided longitudinally arteries of different caliber, and determined, by measurement, the part in their contraction due to elasticity, and that due to physiological contractility, recognizing, before the microscope had shown that the smallest arteries are entirely wanting in elastic tissue, while their muscular tunic is well developed, that contractility has the largest influence upon the smallest arteries. He showed that contractility had no influence on the length of the arteries before minute anatomy had demonstrated the circular arrangement of their contractile elements. Kölliker experimented on the arteries of an amputated limb with a galvanic current, and produced contractions and constrictions of the popliteal and posterior tibial for an hour after the operation.

I have already alluded to experiments on the circulation in the transparent tissues of the lower animals, as seen by the microscope. These are now of vulgar performance, but it was not so when Schwann announced that he had produced successive contractions to one-third of their diameter in the mesenteric arteries of the toad by successive applications of cold water; or Ed. Weber reported having reduced the mesenteric arteries of the frog to one-sixth of their original diameter by an interrupted galvanic current. Numerous medicinal substances have since been tested in this manner, but the direct effect of the agents employed upon the

muscular tissue is here involved with that upon the nerves, either directly or through reflex action, with the results of endosmose and exosmose, and with numerous other complications; and both the classes of experiments I have mentioned lack the quantitative determination, which is the surest basis of scientific generalization. Resort must be had to simpler methods.

The quantities of a liquid discharged through inert tubes of a caliber, such that the effects of friction are inconsiderable, are, other conditions remaining the same, as the squares of the diameters of the tubes As the tubes diminish in size, the effects of friction become more important, till, in capillary tubes, according to Poiseuillé, the quantities discharged are inversely as the length of the tubes, and directly as the fourth power of their diameters. It follows, therefore, that a cause which would reduce the diameter of a capillary tube one-half, would reduce the amount of liquid discharged to one-sixteenth. Obviously the most accurate method of estimating the effect of delicate influences upon the caliber of the blood-vessels is that of measuring the amount of liquid they permit to pass through them under given conditions.

Poiseuille observed, also, that minute differences in the constitution of the liquids exerted a decided influence upon the rapidity of their flow through capillary tubes. Thus, the flow of serum was retarded by alcohol in such quantities as might be supposed often mingled with the blood during life, and that of the alcoholic serum accelerated by ammonia, and he argues that the beneficial effects of ammonia in drunkenness are due to this antagonistic influence. On injecting acetate of ammonia into the blood of a horse, he reduced the time of the round of the circulation from twenty-five and thirty seconds to eighteen and twenty-four seconds, and increased it to thirty-five and forty seconds with chloride of sodium. Iodide of potassium, nitrate of potassa, and chloride of ammonium, increased the rapidity of the circulation in animals, and of the liquid flow in inert tubes. Although his deductions from these experiments are manifestly unwarrantable, the influences which they reveal are important, and should not be neglected; they should not be allowed to vitiate the result of experiments on muscular irritability.

After numerous trials of apparatus and liquids in the endeavor

to avoid sources of error, the following arrangement was adopted for a course of systematic experimentation. A reservoir is placed four feet above the operating table, to the bottom of which is adapted a long tube of caoutchouc terminated by the nozzle of a syringe for anatomical injection. The tube is coiled in another reservoir on the table, of a capacity of several gallons, into which water at any required temperature may be introduced, and lose heat slowly. The temperature of the liquid in this reservoir is that of the liquid discharged from the mouth of the tube, when the upper reservoir has been filled and the current allowed to flow. It is not raised above 110° Fahrenheit, nor allowed to fall below 100°. The liquid most used was a solution of sugar, of a specific gravity of from 1025 to 1030, perfectly neutral, not abstracting water from muscular fibers, nor imbibing them, but permitting them to maintain their irritability for a long period when immersed in it; not affecting the artery experimented on in its passage through it otherwise than mechanically. Blood and serum from the lower animals were employed occasionally to control the results obtained with the saccharine solution. The arteries experimented on were chiefly those of the umbilical cord, which the lying-in ward of a large hospital furnishes in abundance, and which are peculiarly adapted for the purpose. Other arteries were employed, and even whole organs of the lower animals, recently killed, were connected by their arteries with the apparatus, for the purpose of studying the capillary circulation.

The lower reservoir serves also as a water-bath, in which vessels containing the medicated solutions are immersed, their temperature being also that of the liquid flowing through the artery. The artery having been adapted to the tube, and the rate of flow through it measured, the current is arrested, the artery is suspended for a given time in the medicated solution, and the rate of flow is again measured. Or, the rate of flow having been measured, the substance to be tested is mingled in given proportion with the liquid in the upper reservoir, and thus allowed to act on the interior of the artery as in the circulation of the blood.

The arteries of the umbilical cord contain no elastic tissue, blood vessels, nor nerves, but their muscular tunic is remarkably developed, imbedded merely in a loose connective tissue. No

other large blood vessel presents so completely the simple, uncomplicated phenomena of muscular contractility. Virchow, in his Cellular Pathology, has given a true description of the umbilical cord, showing the organized structure of the so-called gelatine of Wharton, and its likeness to the vitreous humor of the eye. He mentions the extraordinary development of the muscular coat of the umbilical arteries, and denies the existence of other blood vessels than the main channels in its structure. Prof. Simpson thus resumes the result of his investigations on the structure of the cord and placenta:—"Into the composition of these parts no capillaries, vasa vasorum, lymphatics, nor nerves are found to enter; hence, in human anatomy, we have these organs forming a large mass, and weighing on an average about two pounds, presenting a type of structure resembling that of some of the inferior zoophytes." I have sought very carefully with the best powers of the microscope for nerves in the umbilical arteries, and have witnessed no appearance which would give the least suspicion of their existence, but the muscular fibers have their typical character and micro-chemical re-actions. They may be beautifully isolated by maceration in dilute nitric acid, and, not being associated with elastic tissue, present the appearance they offer in the minutest arteries of the adult.

The arteries of the cord contract immediately on separation from its attachments, so that it is with difficulty that a liquid can be forced through them. In this state they appear like impermeable cords of a line in diameter. Hunter observed that they would retain this appearance for several days, till incipient decomposition produced complete relaxation. When relaxed completely, they are like flat bands of two lines in breadth, and transmit liquids in copious streams. The persistence of their irritability, though most probably not greater than that of adult arteries, fits them for prolonged experimentation.

1st.—*On the Influence of Different Degrees of Heat on the Caliber of the Blood Vessels.*

The current flowing through a piece of umbilical artery was gradually heated, and as the following degrees, measured by a delicate Centigrade thermometer held in the stream, were reached,

the following quantities were discharged in periods of three minutes each:

At 20 Centigrade,	68 Fahr.	3 fluid drachms.	
At	86 "	4 "	"
At	91 "	$5\frac{1}{2}$ "	"
At 34° "	93.2 "	$7\frac{1}{2}$ "	"
At "	98.6 "	11 "	"
At 46 "	114.8 "	5 fluid ounces.	

I have not determined the law of dilatation under different degrees of heat and varying rapidity of transition, but this series of observations proves, as did numerous others, that arterial dilatation is increased with elevation of temperature, and that the vascular irritability is most marked in the vicinity of blood-heat. An exceedingly interesting point is the limit of dilatation and the complete relaxation and paralysis of the muscular tissue at 115° Fahrenheit. This I have established by most careful observations, and the proof that the same phenomenon occurs in living animals also, I have given in an article on sun-stroke in the *Boston Medical and Surgical Journal* for June, 1864. When the temperature of the blood in rabbits has been raised to this point, the blood vessels of the ears, turgid with dilated vessels and rapidly circulating blood, refuse to contract under the influence of cold and galvanic currents; when this symptom manifests itself, death soon ensues.

Water was heated to 55° Centigrade, and, as it cooled, portions of umbilical artery at the temperature of the room were immersed in it, at intervals of two degrees of temperature and for a minute of time. At 55° and 53° Cent., the artery became perfectly flaccid; at 51°, the flaccidity was not so complete, the artery possessed the slightest degree of tonicity; at 49°, the artery coiled up on immersion, and remained in a state of rigidity after it was withdrawn; at 47° it coiled up on immersion, but on exposure to the cold contracted more firmly; at 45° and 43°, no marked contraction ensued during immersion, but followed its withdrawal and exposure to the cold. These experiments prove that what is true of the striated muscular fiber, holds good also with the non-striated fiber of the arteries, both becoming rigidly contracted and paralyzed by a sudden elevation of temperature to the vicinity of 115° Fahr.

In these experiments, no *active dilatation* could be perceived.

The artery simply yielded to pressure from within, or to mechanical distention.

Evidence that heat has the power of relaxing the muscular coat of the finest arterioles was gained by experimenting on whole organs with the defibrinated blood of the lower animals. When a column of blood, four feet in height, connected with the artery of an organ—a kidney, for example—could not force a single drop from the veins, it was sufficient to immerse the organ in water at or above 100° Fahr., to admit free circulation through its capillaries, the rapidity of which rose with the elevation of temperature.

2d.—*On the Effects of Medicinal Substances on the Caliber of the Blood Vessels.*

The medicinal substances subjected to experiment were chosen from the class of stimulants and sedatives, as most likely to manifest a direct influence on the muscular coat of the blood vessels. In Wood's classification of the Materia Medica, the systematic stimulants proper are divided into the arterial, nervous, cerebral and spinal, and the systemic sedatives into the arterial, nervous and cerebral. Representatives of each of these classes were tested, and proof secured that many of them are directly upon the blood vessels.

1. The *Arterial Stimulants*, according to Wood, are capsicum, oil of turpentine, certain ammoniacal preparations, of which carbonate of ammonia is chief, and phosphorus. Of these, carbonate of ammonia was deemed most worthy of study, from its undoubted medicinal powers, from the interest it has excited in theories of uræmic convulsions, of the coagulation of the blood, and of the causation of a low grade of fevers.

In one series of experiments with this substance to the liquid flowing steadily from the artery, at the rate of four and one-third fluid ounces every two minutes, the carbonate was added in the proportion of fifteen grains to the pint. The flow soon reached five fluid ounces in the same period, and as the ammonia, or amono-carbonate, evaporated from exposure to the air in a thin stream at the temperature of 100° Fahr. (the liquid having been poured back into the upper reservoir after each observation,) the quantity discharged fell to three and one-third fluid ounces. On

adding an additional fifteen grains, the quantity rose to four fluid ounces. Here the play of the artery, under the varying doses of the carbonate, proved that we were dealing with physiological irritability, and not with mere physical or chemical phenomena.

To control these results and eliminate the influence shown by Poiseuille to be exerted by ammonia to hasten the current of liquid in inert tubes, arteries were immersed in solutions of the carbonate of different strength, the liquid flowing through them being the simple saccharine solution. An artery which discharged one and five-sixths fluid ounces per minute before it was suspended in a solution of the carbonate of the strength of a drachm to the ounce, after five minutes' immersion, discharged sixteen ounces per minute. An artery which, before immersion, discharged two ounces per minute, after immersion for three minutes in a solution of the strength of ten grains to the ounce, discharged eight ounces per minute. An artery which, before immersion, discharged two and one-sixth ounces per minute, after immersion for twenty minutes in a solution of the strength of two and a half grains to the ounce, discharged five ounces per minute. From the first experiment there resulted complete paralysis of the artery; from the others, relaxation merely, with conservation of irritability. Although the proportions of the carbonate were greater than those of the medicinal doses to the amount of blood in the circulation, still the arteries are undoubtedly more sensitive in a living animal than they were in these experiments.

The fact that ammonia possesses the power of relaxing the arteries having been proved, it remained to trace its influence upon the volume of the arteries, and the force and frequency of the pulse when administered as a remedy in disease. This study led me to several unexpected results. I found that I could administer thirty grains every fifteen minutes for an hour without the slightest influence on the pulse; that I could in no case produce its excitement, and that in several cases the result was its actual depression. It was strange that the medical authorities who testified to the stimulating properties of the sesqui-carbonate, when given in doses of ten grains every two hours, should have omitted to mention that it might be administered in doses of thirty grains every fifteen minutes, with no appreciable effect on the system.

It was a disappointment to find the conclusions I had drawn from my experiments in the laboratory, falsified by further experiments in the wards. I had not taken into consideration that carbonate of ammonia in solution is decomposed, according to Wood, "by most acids," "and by most salts with excess of acid," "by potassa, soda, and their carbonates; by lime-water and magnesia," and "by the soluble salts of lime;" that the gastric juice contains free hydrochloric and lactic acids, and that this secretion is seen to be poured out abundantly when the stomach of one of the lower animals is touched through a fistulous opening by a rod dipped in an alkaline solution; that, should the carbonate escape decomposition by the acids of the gastric juice, the alkalies and their carbonates would meet it in the blood, and destroy it often, as rapidly as it should be absorbed; that, should the carbonate be absorbed more rapidly than it could be decomposed by the gastric juice and the blood, it would probably not enter the arterial blood at all, but that portion which continued to be volatile, would escape from the system by the lungs, as sulphuretted hydrogen is known to do when sulphur-waters have been taken into the stomach. The systemic influence of the carbonate would therefore be that of a more stable compound of ammonia, as the muriate for example; its local influence would be one of irritation to the stomach, if not sufficiently diluted, and perhaps one of the free ammonia in the lungs. After taking a drachm of the carbonate, I caused all the air I expired for fifteen minutes to pass, in fine bubbles, through a linen tissue, kept saturated with dilute hydrochloric acid. The evaporated liquid yielded a notable amount of sal-ammoniac. As the linen had been previously soaked and washed in dilute hydrochloric acid, the ammonia could have had its source only in the expired air, and so large a proportion could not have been an ordinary physiological phenomenon. I concluded therefore that when large doses of carbonate of ammonia are taken, free ammonia escapes by the lungs. It is possible that the decided benefit with which the carbonate is administered in certain pectoral diseases, is due to this cause. In the experiments of Frerichs on uræmia, the injection of carbonate of ammonia into the blood was followed by convulsions, and the abundant escape of ammonia from the lungs. The question of the amount of ammonia expired, after

large doses of the carbonate, should be settled by competent chemical authority.

The speedy precipitation of large and abundant crystals of the ammonio-magnesian or triple phosphate from the urina sanguinis, which, before the administration of the carbonate, had no such tendency, proved that an ammoniacal compound had found its way into arterial blood; but my experiments had shown that the stable ammoniacal compounds—the chloride, at least—had no influence in dilating the arteries, and thus the results of clinical observation and those of experiment were reconciled; moreover, if I inspired for five minutes the air passing into a flask containing a solution of carbonate of ammonia, the excitement of the pulse was immediate and very manifest—but so was the irritation of the lungs.

That a general relaxation of the muscular tissue of the blood vessels must produce those febrile phenomena called by physicians "general stimulation," can be shown to follow from well-known physiological laws.

The inconsistencies of the nervous theory of fever have been acknowledged by some of our best pathologists, who still cling to the doctrine of Cullen. How they can explain the effects of counter-irritation by the admission that there is in the body only a "certain amount of nervous influence," which when called to one part must forsake others, and yet trace to nervous influence the phenomena of fever, which they define as "a general disease affecting all the functions," has always seemed to me incomprehensible. The truth is, that a general excitement of the system cannot be a nervous manifestation simply. If one sense is developed or exercised, it is at the expense of the growth or activity of the other senses; the activity of the cerebrum calls off energy from the automatic nervous apparatus; pure nervous diseases are of a local character; all nervousness is non-febrile; severe injuries affecting the nerves are not immediately followed by fever. These and other facts of the same bearing are too patent, one would think, to the daily observation of physicians, to permit them to lay much stress on the accepted nervous theory of fever. In all nosologies, the pyrexiæ and neurotica form as distinct classes as nosological classification allows.

[To be Continued.]

ART. II.—*Report of the Buffalo General Hospital.* By J. R. Lothrop, M. D.

This Report embraces a period of one year, viz., from July 1st, 1864, to July 1st, 1865, and includes all patients treated by the several attending physicians and surgeons.

Number of Patients received during the year	894
" not placed under treatment	6
	888

The results of treatment may be stated as follows:

Discharged well	594
" relieved	148
" not relieved	30
Died	33
Remaining under treatment	83
	888

From this it appears that the ratio of deaths has been a little more than 3 per cent., or about 1 in 27.

The cases received and placed under treatment admit of the folfowing general classification:

SURGICAL CASES.

Abscess	3	Lupus	1
Amputations	28	Necrosis	2
Affections of the Eye	17	Orchitis	6
Concussion of the Brain	1	Paralysis	11
Cancer	4	Paronychia	1
Caries	3	Prolapsus Uteri	1
Erysipelas	4	Retention of Urine	3
Fractures	15	Synovitis of Knee	1
Fistula in Ano	1	Tonsillitis	4
" Vesico Vaginal	1	Tumors	4
Frost Bite	6	Ulcers	12
Hæmorrhoids	4	Stricture Urethral	3
Hernia Inguinal	1	Varicocele	1
Hospital Gangrene	33	Varicose Veins	4
Inflammation of Ear	2	Venereal Diseases	15
Injuries, (various,)	52	Gun-Shot Wounds	221

MEDICAL CASES.

Albuminuria	1	Diseases of Heart	8
Alcoholismus	1	Insanity	1
Asthma	3	Jaundice	5
Bronchitis	15	Neuralgia	2
Chorea	1	Nephritis	1
Cholera Morbus	1	Old Age	1
Congestion of Brain	1	Parturition	3
Coup de Soleil	4	Peritonitis	1
Debility	52	Phthisis	35
Delirium Tremens	6	Pleuritis	6
Diarrhœa, Chronic	141	Pneumonia	7
Dropsy	8	Rheumatism, Acute	3
Dysentery	11	Rheumatism, Chronic	40
Epilepsy	4	Rubeola	1
Fever, Intermittent	30	Scarlatina	1
" Remittent	11	Sciatica	2
" Typhoid	6	Variola	3

This Hospital having been one designated by the War Depart,

ment for the reception of sick and wounded soldiers, will readily explain the large number of cases of gun-shot wounds and chronic diarrhœa. A purely civil hospital would not be likely to receive so great a number of such cases. These groupings, as given above, are in some cases too general, and need more detailed statement. It will be seen, debility covers a large number, in which a definite diagnosis was not or could not be arrived at, making the statistics somewhat indefinite and less valuable. All such grouping is objectionable, and should be, as much as possible, avoided. Of course, in many cases an autopsy is the only thing which will clear up satisfactorily an obscure case, but modern methods of diagnosis are competent to make, if well employed, a more definite classification. The same objection lies against so general a term as dropsy, though it is very probable that it is used as but another term for ascites.

CAUSES OF DEATH.

Abscess, Psoas	1	Fracture, Foot and Ankle, compound (after Amputation)	1
Cancer of Uterus	1	Hospital Gangrene	3
Concussion of Brain	1	Old Age	1
Debility	2	Pericarditis	1
Delirium Tremens	1	Peritonitis	1
Diarrœha, Chronic	4	Phthisis	6
Dropsy	1	Pleuritis, (1 empyæma,)	2
Dysentery	2	Pneumonia	2
Epilepsy, (after trephining,)	1	Pyæmia	2
Fever, Typhoid	2	Valvular disease of Heart	1
Fracture of Skull	1		

Amputations.—Twenty-eight amputations are recorded—without explanation this would convey a wrong impression. The amputations were not all made at the Hospital. In most cases, this had been done before the patients were admitted. The cases were mostly soldiers, some of whom had undergone the operation on the field, and some in other Hospitals. They were, therefore, received for treatment after amputation. The cases of amputation actually performed at the Hospital, will be spoken of separately. With this explanation, the cases of amputation were—of the thigh, four; of the arm and forearm, nine; of the leg, ten; of the foot, one; of fingers, four.

Cancer.—The cases of cancer were, of the breast schirrus, one, removed; one of the os uteri causing death, in a woman about 45 years of age; one of the testis, medullary, in a young man, thirty years, removed; and lastly, a medullary cancer on the outer and upper part of the thigh in a man about 50, which was not inter-

fered with, as it had so far involved the neighboring tissues as to offer no prospect of benefit by removal.

Diseases of the Eye.—Conjunctivitis, nine; ectropion, two; melanosis, one; injury (gun-shot) causing loss of sight in both eyes, one; iritis one, catarrhal ophthalmia, one; opacity of the cornea, two.

Fractures.—The fractures were of the clavicle middle third, one; lower jaw comminuted, one; femur middle third, one; fibula alone, one; tibia alone, one; tibia and fibula both, three; humerus, two; patella, two; ribs, two; skull, one. The fracture of the clavicle was caused by a direct blow upon the shoulder, and there being considerable obliquity and overlapping, the result was rather more than the average deformity, though the pad and sling were employed, and the patient made very uncomfortable by the complicated retentive apparatus. The fracture of the femur was treated by extension by means of weights and without a long side splint; the leg and thigh being propped by pads. Short splints were employed. The counter extension was obtained by elevating the lower end of the bed by means of a block three or four inches in thickness. In addition, a board foundation upon which the bed rested was hinged near the middle, so that both feet and head could be elevated. On the inclined plane thus formed, at the lower end, the weight of the body gave sufficient counter extension. The weight employed never exceeded thirteen pounds, and was for the greater part of the time less than ten pounds. It was attached to a cord which played over a pulley fastened by means of a frame to the foot of the bed. The result was satisfactory, the shortening being less than half an inch. This apparatus proved more comfortable to the patient and more easily managed, than any heretofore employed.

Paralysis.—Of these, six were cases of paraplegia, four of hemiplegia, one of paralysis of the facial nerve which was caused by exposure to cold air.

These cases of paraplegia illustrated some of the points of differential diagnosis. One was in connection with angular curvature or Pott's disease, and in this case the control of the sphincters was not lost, confirming the statement of Romberg that paralysis from affection of the bones of the vertebral column spares the

sphincters. In another in which the cause was myelitis, the control of the sphincters was lost, and there was an entire loss of sensation, motion, and of the reflex function, as well as great diminution of temperature; but twitchings and spasmodic movements were frequent. In another, a case of meningitis with effusion, the characteristic rigidity of the muscles of the back, increased at times by spasmodic action was exhibited in most marked degree.

Venereal Diseases.—Under this head are included four cases of primary, nine cases of secondary syphilis, and two cases of gonorrhœa.

Gun-shot Wounds.—The two hundred and twenty-one cases of gun-shot wounds were of such a nature as to admit of removal, therefore generally light, or so far progressed as to offer no obstacle to a journey from camp hospitals or regular military hospitals near the front. Some were received soon after the infliction of the wound, while others had been some time in hospitals elsewhere, and were sent away to make room for more recent and severe cases. The severe battles in the summer of '64 around Richmond, furnished a good many cases of recent wounds—the wounded being sent directly from the field to the hospital. Such cases were generally light wounds of the extremities, but in many cases from delay and heat, and the motion unavoidable in transportation a long distance, the wounds became inflamed, and if not actually gangrenous, were attacked by gangrene soon after arrival. The results were, therefore, very serious in many cases of originally light wounds. Of the two hundred and twenty-one cases of wounds, seventy-two were of the upper extremities, and one hundred and fifteen of the lower extremities. Almost all cases of wounds of the head and trunk were from other hospitals, and were not of recent date. They were therefore convalescent. Among these wounded, thirty-two cases of hospital gangrene occurred, and three terminated fatally. Those who recovered were in many cases more crippled than was due to the nature of the primary wound.

In the local treatment of gangrene, turpentine, bromine, and permanganate of potash were the remedies most employed. The latter remedy appeared more positively beneficial than the others, and preference was given to it. But in many cases, as the experi-

ence of others has taught, for a time no remedy seemed to exert any decided influence. The measure apparently most useful was removal from the hospital building to tents in the yard. The benefits of this measure were soon apparent. The two important objects requisite, fresh air and isolation, were thereby secured.

The medical cases cannot be given in greater detail from lack of knowledge. In some cases the statement of diseases is too general, and therefore likely to create an unjust impression of the nicety of the diagnosis. For instance, eight cases of disease of the heart are given, in a general way, when upon examination it is found that this embraces five cases of valvular disease, two of hypertrophy, and one of pericarditis. The means are not at hand to make such a statement, as will set forth clearly, the differential diagnosis, which was probably made in cases embraced in a class.

It cannot escape observation that the success in the treatment of chronic diarrhœa was quite remarkable. Of the one hundred and forty-one cases, fifteen were under treatment at the close of the year, and the results therefore not determined. Excluding these one hundred twenty-six remain, in which results are reported. Of these one hundred and twenty-six, one hundred and eight recovered, and were discharged well; sixteen were much relieved, and two only ended in death. One familiar with cases of chronic diarrhœa, contracted in the camp, or in the field, is fully aware of its often intractable nature, and the slowness of its progress, i. e. towards recovery. In treating such cases, we must be prepared to meet with ill success, for often remedies exert no beneficial influence, and in spite of all measures the disease steadily goes on to a fatal termination. Autopsies explain it by revealing a thickened, contracted and softened colon, and the lower portion of the small intestine inflamed, reddened, and having undergone a change or destruction of tissue. The treatment adopted in these cases was more largely dietetic and hygienic than medicinal. The astringent preparations of iron were more employed than any other medicines, and particularly the muriated tincture of iron. Continued for a long time more benefit was perceptible from it than from any other medicine. When the absorbing power of the intestine is not so much interfered with that nutrition is defective, recovery will usually follow when sufficient nourishing food can be

obtained. The results in these cases will compare favorably with those of treatment in any other hospital.

Correspondence.

UTICA, August 4, 1865.

To the Editor of the Buffalo Medical and Surgical Journal:

Sir:—I send you the following report of an autopsy, also a few facts connected with the case:

Autopsy July 27, 1865. On inspection of the body there was a lacerated wound on the right wrist; also two lacerated wounds on all of the fingers except the third, which had only one. On the left side of the head, just anterior to the meatus auditorious externus, was a lacerated wound, apparently having been produced by a gun-shot. On probing the wound, found that it extended into the cranium. Then removed the calvaria and exposed the brain, also removing it from the cranium. The ball entered the cranium through the petrous portion of the temporal bone, severing the carotid artery. The track of the ball was plainly indicated by a groove traversing the anterior portion of both hemispheres of the cerebellum. As it passed from the left lobe to the right lobe, it severed the anterior and middle portions of the medulla oblongata, just below the pons varolii. After leaving the right lobe it struck the right temporal bone, changed its course, going downwards, removing a small portion of the occipital bone on the right of the foramen magnum, and most likely passed into the spinal column.

The facts in the case are that he lived about five minutes, and walked about fifteen feet. This is as wonderful an exhibition of vitality, and the power of exercising volition and locomotion, as I ever saw recorded. I believe it is the opinion of all surgeons that severing any portion of the spinal marrow, above the third cervical vertebra, ordinarily causes instantaneous death. Please give your opinion as to the facts in the case, also of the writer's idea.

Yours, respectfully, IRA D. HOPKINS, M. D.

Summary of Foreign Medical Journals.

BY FRANK KING.

Dr. Pagenstecher of Wiesbaden, on the use of the Yellow Amorphous Oxide of Mercury in Conjunctivitis and Corneitis Phlyctenulosa. (*Ophthalmic Review*, July number, 1865.) The author shows that red precipitate—the red oxide of mercury—which is recommended in a large proportion of corneal diseases, is from its crystalline form, inadequate for this purpose, and speaks highly of the almost specific effects of the *yellow amorphous oxide of mercury* in his practice.

"Red precipitate, the red oxide of mercury, has hitherto played an important part in the treatment of the superficial diseases of the eye, in the form of an ointment. When the object of the surgeon was to produce a stimulating effect, in diseases of the conjunctiva and cornea, we find several compound ointments of this kind recommended. The red precipitate is from its crystalline form not sufficiently divided, and does not act uniformly on the diseased membranes, very often, too, gets retained in the folds of the membrane, and there sets up a caustic action. Acting under the advice of Dr. Hoffmann, I substituted the yellow amorphous oxide of mercury. This preparation possesses the advantage of being in the finest possible division, and being altogether destitute of any crystalline form. It differs not only in form, but also in its chemical characters from those which have been hitherto used. Care must be taken in the precipitation to obtain a pure oxide. The precipitation is effected by adding a solution of the chloride of mercury to a solution of potash, in such a way that there is an excess of the latter; after the precipitate has deposited itself, the supernatant fluid is at once poured off, the precipitate thoroughly washed, and dried by a gentle heat, with exclusion of day-light. Thus prepared, the yellow precipitate has a light yellow color, and is an exceedingly fine powder.

The most perfect vehicle for an eye ointment, must be very soft, without however, being too fluid, lest the heavy oxide sink to the bottom; but when in contact with a moderate heat of the body, it must completely melt, and be quickly and uniformly diffused over the eye. Numerous experiments with hog's lard, butter, glycer-

ine, glycerine ointment and mixed fats, have led me to give the preference to the last, and I recommend either the mixture of spermaceti, wax, or almond oil.

The principal conditions under which the ointment is recommended are conjunctivitis and corneitis phlyctenulosa, which have been called by different authors by the most different names, in mild cases of scleritis, corneitis, vasculosa, corneitis fasciculosa, corneitis ulcerosa or corneitis profunda; the ointment is also an excellent means of clearing the cornea in all those exudations which persist after inflammation. The good effect of the ointment is most displayed in chronic cases, after the originally increased irritation of the cornea has somewhat abated, and the vascularity assumes what is known as passive congestion.

The contra-indications of the ointment are easily known, corneitis purulenta, blenorrhoica, or corneitis vasculosa, originating in granular lids and trachomatous pannus, generally get worse under its use. In syphilitic corneitis parenchymatosa it has no effect; but in the consequent obscurations of the cornea the ointment may be used after all acute symptoms have vanished, to clear the cornea. If any iritis coexists, the ointment must be avoided, as well as in all deep infiltrations and ulcerations of the cornea. Its immediate effect is irritant, and the increased flow of tears and feeling of pain prove that there is no necessity for the application to remain long on the diseased parts to produce its effects. When the ointment is applied for the first time, the irritation may persist for several hours, till gradually it sinks to its previous degrees; on the second or third application always observing an interval of four-and-twenty hours between each, the immediate irritant effect is always much less. The eye gradually so accustoms itself to it that generally after being used for a week the re-action only lasts for about half an hour. The raw exudation-surfaces lose their rough appearance, their yellowish color gets more grayish-white, and at last they become quite smooth and clear. As regards photophobia, we possess in the yellow oxide of mercury an excellent sedative, due to the previous irritation. It agrees with the more delicate structure of the eye, and only excites that slight amount of irritation which is necessary to exert an alterative action on the diseased tissue, and perhaps exposed, nerves.

The ointment is to be applied but once a day, with a small brush, dipped in it, and applied between the eyelids; if it has the right consistence, it gets by the movements of the lids, diffused over the whole conjunctiva and cornea, and then by the same agency extended from the eye, it should then be wiped off, lest it, by remaining too long in contact, create an undue irritation. If the movements of the lids are insufficient to completely remove it from the conjunctiva, we may effect this by rubbing them together, and raising both the upper and lower lids from the globe. Cold applications after its use generally very quickly subdue the first somewhat violent signs of irritation. If the eye still exhibits any irritation after one or two hours, it disappears after a walk in the open air."

John C. Agnis, M. B., F. R. C. S., Assistant Surgeon Royal Horse Guards, on the treatment of Hydrocele by pressure after injection. (*London Lancet*, August number, 1865.)

After operations for hydrocele, there always remains a certain amount of deformity of the testicle and neighboring tissues. The author of the following treatment has found in his practice that pressure applied in the way usual for orchitis, restores the testicle to a consistency nearly normal. His plan is this, "having tapped the hydrocele, and injected a solution of iodine, he waits till the tenderness has subsided enough for the patient to bear without pain a degree of pressure equal to that produced by strapping. Then he applies the strappings in the way generally done for orchitis; some times the swelling diminishes so fast that the strappings have to be re-applied every second day. He thinks the earlier they are applied the better, provided the inflammation has subsided enough for it to be done without pain."

Samuel Wilks, M. D., Assistant Physician to Guy's Hospital, on Epidemic Cerebro-Spinal Meningitis. (*Lancet*, July number, 1865.)

The author of this article, remarks that the three maladies prevailing in Russia, may be found hereafter to have the same origin, and that one of them, "meningitis spinalis," has prevailed in various parts of Europe and America for many years, in which the main symptoms as well as the deaths were due to an inflammation of the brain and spinal cord. "The petechiæ would denote a

blood-disease, and therefore the cerebro-spinal meningitis may be only one of the usual concomitants; since recovery often took place, and an inflammation of the nervous centres is an almost necessarily fatal affection, it can scarcely be regarded as an essential part of the disease. From amongst the author's reports of post-mortem examinations, he records three cases of this disease as occurring suddenly in persons previously comparatively healthy. According to the modern doctrines of pathology, a healthy person cannot be seized with a simple idiopathic inflammation of this kind, it is probable that in these cases there were some accompanying blood-disease, of which the cerebro-spinal meningitis was the most marked outward evidence."

Dr. W. T. Gairdner, Professor of Medicine in University of Glasgow, on Typhus Fever. (*Braithwaite's Retrospect*, July, 1865.)

"In a large proportion of cases, typhus fever left to pursue its natural course, and treated with milk diet and without drugs or stimulants, will have its natural crisis before the twelfth day. No other food can be depended on but milk or buttermilk; to give wine, whisky, and beef tea, while withholding milk is to diminish the chance of the patient's recovery. Large doses of alcoholic stimulants are positively injurious, as is also the deprivation of fresh air. Our guide to the progress of a case of fever is, to watch carefully and constantly the rate of the pulse, for it gradually rises in frequency up to the acme of the fever, and then as gradually declines, so that the crisis can be accurately ascertained. This is of immense importance as regards the prognosis, for the other symptoms may continue as formidable as ever, but if the pulse is gradually declining in frequency, the case will do well."

Frederic H. Morris, M. D., case of Recurrent Fibroid Tumor. (*Lancet*, May number, 1865.)

A brick-maker, aged 42, consulted Dr. Morris about a tumor in the neck. On examination a tumor was found in the parotid region, about the size of a walnut. As his general health was good, removal was recommended. In about ten months he again presented himself; it was now about the size of a lemon, adherent to the fascia of the neck, but the skin was quite movable. He was anxious to have something done, and the operation was performed. No vessels were wounded; the wound healed by first intention,

and the patient experienced considerable relief. In a short time another tumor appeared, which rapidly increased in size, and he sank exhausted with pain, etc., about five months after the operation.

On examining the tumor after removal, it presented externally a firm fibrous appearance, the interior was soft and pulpy. In structure the hard parts were essentially fibrous; many of the fibres appeared made up of cells, closely applied together, and in the soft parts isolated cells and nuclei abounded.

The recurring fibroid tumor forms a kind of connecting link between the innocent and malignant formations, and it is an important circumstance that the later-produced tumors approximate much more in appearance and behavior to the malignant character than the original.

Miscellaneous.

Spotted Fever without Cerebro-Spinal Meningitis.

By James J. Levick, M. D., one of the Physicians of Pennsylvania Hospital.

At the present time, when the true nature of the so-called "spotted fever" is exciting much discussion, both at home and abroad, the following notes of a case of this disease coming under the writer's care may not be uninteresting:

During the prevalence of the epidemic of spotted fever in this city in the early part of last year I was called by my friend, Dr. Scholfield, to see Ellen C———, a tall and robust Irish woman, residing near Eighth and Filbert streets. She had been detained at a restaurant, where she was employed as cook, until a late hour of the preceding night. She went to bed at 2 A. M., apparently as well as usual. During the night she was seized with a chill, nausea and vomiting. This latter continued throughout the night. She was seen by Dr. Scholfield at about 10 o'clock in the morning, and a few hours later by the writer, and presented the following appearance: she was sitting up, gave the history of her attack as noted above, said she had no pain in her head, but complained of

severe pain in the region of the heart and epigastrium. The conjunctivæ were injected, and the pupils promptly responded to the stimulus of light. No pulse could be felt at the wrists or at the bend of the arm; the heart was acting feebly and irregularly.

The face presented an extraordinary appearance. On each cheek there were large, dark, purple extravasations of blood, varying from half an inch to an inch in size, while the interspaces were dotted with small petechiæ. On closer examination almost every part of the surface of the body was found to be thus spotted, the spots varying from patches of two inches in width to points not larger than the head of a pin.

Although regarded by us as too ill to be disturbed her removal was insisted on by the people of the house, and the woman was soon after sent in a carriage to the Pennsylvania Hospital. When admitted she was unconscious and moribund, with great lividity of the surface, and she died at 2 P. M., just twelve hours after she had gone to bed apparently in her usual health.

From the time she was first seen by Dr. Scholfield she had taken freely of brandy and quinia.

The *autopsy* was made next day at 11 A. M., in the presence of Drs. Gerhard, Hartshorne, Morton, the resident physician, and the medical class of the hospital. The appearances presented were as follows: *Exterior.* Rigidity well marked. The entire surface of the body, excepting those parts on which it rested, was of a dull livid color. There were patches, as before described, on the face, chest, and abdomen, and numerous petechiæ on the legs. On cutting through the scalp there was an escape of dark fluid blood with which the vessels were turgid. A large echymosis was found on the left temporal bone, and smaller ones on other parts of the cranium. The meningeal vessels were filled with black blood. The most careful examination failed to detect any evidence of inflammation either in the substance of the *brain* or in its membranes. The *spinal cord* was removed in its entire length, and was examined both by the unassisted eye and with the microscope. It was of a firm consistence, and in every way free from disease.

The *lungs* contained a large quantity of dark fluid blood. There were blood stains on the pleuræ and on the arch of the aorta.

The *heart* had undergone a slight, fatty degeneration. It contained a large quantity of fluid blood; was free from coagula, excepting three soft clots about the size each of a pea. The *spleen* was firm and of the usual size. The *liver* congested and fatty. The *stomach* and *intestines* both on their outer and inner coats were dotted with innumerable blood spots. A large extravasation was found on the *pancreas*, and one entirely covering the summit of the *uterus*. In the *ovaries* several vesicles were found filled with black blood. A few spots were seen on the bladder, and a large number on and in the kidneys.—[*Medical and Surgical Reporter.*

JUNE 25, 1865.

Puerperal Insanity.

The May number of the *Edinburgh Medical Journal* contains an interesting contribution to the statistics of Puerperal Insanity, as observed in the Royal Edinburgh Asylum, Morningside.

The writer, Dr. J. B. Tuke, has collected 155 cases of "so-called" puerperal mania, recorded during the last eighteen years in the case-books of the Asylum. He remarks that these cases comprise the more severe forms of the malady, inasmuch as those of a mild character are generally managed at home by the family medical attendant. The results of treatment of puerperal insanity, *as a whole*, therefore, are not attempted in this essay.

Dr. Tuke tabulates his cases under the following heads:—The Insanity of Pregnancy, Puerperal Insanity, and the Insanity of Lactation. Of the 155 cases, 28 belong to the first group, 73 to the second, and 54 to the third.

Dr. Tuke discusses at length the distinctive characteristics of these several groups, and the prognosis and treatment in each, and epitomizes the results in tabular form. The following are his conclusions:

1st—That an increase of liability to insanity exists between the ages of 30 and 40 in child-bearing women, and that first confinements occurring at that period are peculiarly frequently followed by true puerperal insanity.

2d—That Primiparæ are more commonly the subjects of the insanity of pregnancy and puerperal insanity than multiparæ.

3d—That the insanity of pregnancy in the majority of cases is developed during the third, fifth, or seventh months.

4th—That the insanity of pregnancy is generally evidenced by melancholia or moral perversion, and that it is very curable.

5th—That the hereditary tendency is peculiarly traceable in these three forms of insanity, and that in a large proportion of cases it exists on the female side of the family.

6th—That puerperal insanity leaves a tendency to other forms of insanity.

7th—That the puerperal insanity characterized by melancholia rarely commences until nearly a month after labor.

8th—That a tendency to suicide is a very frequent symptom.

9th—That complicated labors are more frequently followed by puerperal insanity than natural ones.

10th—That cases of puerperal insanity, in which acute mania is the leading symptom, are more amenable to treatment than those in which melancholia exists.

11th—That the insanity of lactation does not ensue on the first nursing so frequently as on subsequent ones, and the longer the child is kept to the breast the liability necessarily increases.

12th—That the insanity of lactation is more transient than either of the other forms, and that where evidenced by acute mania is less persistent than where melancholia exists.

13th—That delusions as to personal identity are very common symptoms in the three forms of insanity.

14th—That none of these forms of insanity are of themselves very fatal, except when complicated with other and especially inflammatory diseases. That they are all very amenable to treatment when such treatment is adopted early, and that the longer the patient is deprived of the benefits of an asylum the chances of recovery decrease.

15th—That this type of disease was anæmic in these three forms of insanity, which indicated the administration of a highly nourishing diet, but a very cautious use of stimulants.

16th—That the exhibition of narcotics is not beneficial where the leading symptom is acute mania.—*Am. Jour. Insanity.*

A Case of Severe Injury—Recovery.

TREATED BY O. D. NORTON, ACT'G. ASS'T. SURGEON, U. S. A.

Rev. William F. Nelson, aged 56, Chaplain, Washington Park, U. S. A. General Hospital, Cincinnati. On the 28th day of January, 1865, while in the discharge of his official duties he was knocked down and stunned by the pole of a two-horse sleigh. While on the ground, the horse's foot struck him in the face, over the right molar bone, fracturing and separating the entire upper jaw from its attachments. The external wound, commencing at the tuberosity of the right molar bone, extended horizontally across the nose, immediately beneath the external canthus of the right eye, then vertically downwards to the right angle of the mouth.

Commencing upwards and going downwards, we find the following injuries: first, a fracture of the several bones composing the floor of the right eye; next, a comminuted fracture of both nasal bones, and their separation from the attachment to the frontal bone. The right superior maxillary bone was also fractured, it running through the antrum hymorianum. Both maxillary bones were loosened from their attachments of the pterygoid plate of the sphenoid. The whole of the right side of the maxillary bone was thrown forward in such a manner, that in looking below, the fauces and epiglottis were plainly visible. The palate bones were separated from one another, and portions of the soft palate torn and lacerated. The last two molars of the upper jaw, and also of the lower, on the right side, and last molar of lower jaw on the left side were loosened. A rib was also fractured on the right side. * * * * * * *

The health of the patient has now been fully restored, although he experiences some loss of the power of mastication and speech. The latter faculty seems to be improving, and the patient expresses an earnest trust that, although he will never be able to articulate as well as he could formerly, it will continue to improve. The lacrymal ducts have been obliterated. At the present writing, there exists still more looseness of the superior maxillary bone. In all other respects the patient is unusually well.—*Cincinnati Lancet and Observer.*

Editorial Department.

Stimulants in Disease.

It has become so fashionable for physicians to recommend stimulants in all cases of disease, all cases of discomfort, all cases where advice is asked, that finally it is taken without consultation, upon the presumption that if it has not, it will be the first remedy recommended by the medical attendant. That all patients require stimulus has well nigh become a conviction in the minds of physicians, and is the other natural extreme from that old and nearly exploded notion, that disease was mostly inflammatory in character and required depletion as a remedy. Experiments are made and published to show that "alcohol is food," and as it is an agreeable dish, it has come to stand very high in the list of dieteties. This position is sustained by worthy names, and good physicians are led to believe that alcohol is useful in moderate quantities in health, and of immeasurable and indispensable benefit in disease. This notion has gone to such an extent that even infants are fed on alcoholic stimulants to give them strength, while milk, their natural food and support, is wholly neglected, a panada of wine and some Frenchman's concoction of starch or bran forming the staples of nutriment. Whisky has attained to the dignity of an universal remedy. Coughs of any time standing are treated to a dose of it every four hours; pains in the chest, often from dyspeptic disease, mainly induced by its abuse, are treated by whisky, in "table spoonful doses after meals," as a sovereign remedy for all pectoral derangements. Every body who is weak, every body who is sick, all who are in any way unwell, take whisky as the great all-powerful, all-healing remedy. That stimulants are useful in low forms of disease appears very probable; that those who are from any cause requiring some temporary artificial support may derive benefit from this source is quite certain, but whoever watches the action of stimulants both upon the healthy and diseased, cannot fail to discover that its present indiscriminate adoption for universal purposes is the greatest calamity which has ever befallen, or ever can befall the community. Whisky is a curse in comparison

with which all other social vices or evils are blessings; it so infinitely outweighs all other evils in its effects upon the lives and healths of mankind, that it is really the "sum of all evil." If it has benefited one poor consumptive who used it temperately, it has induced fatal disease in a hundred others who have used it improperly; if it has sustained one patient through the stage of collapse or prostration incident to severe disease, it has carried a hundred into a condition of prostration and collapse from which there is no recovery. We have not commenced a Father Mathew crusade in the temperance reformation, but have had opportunity of observing that this whisky medication is becoming alarming; it grows more and more serious every year, and every sober man, medical men in particular, must have anticipated an approaching day of universal debauch, when every body will die drunk.

Not a day passes but these subjects are presented for the consideration of practitioners of medicine, and we solemnly believe that if physicians owe anything to the community, outside their round of professional advice, it consists in a frank, candid, outspoken warning as to the poisonous effects of excessive stimulation. It would be regarded as criminal if any other agent was being used to one-hundredth part the injury—was causing disease and death in anything like the frequency, and physicians said nothing more about it, than they do upon the subject of intemperance. But this is not our point; we are desiring to call attention to the fact that stimulants are too freely and too inconsiderately recommended in mild and unimportant conditions of derangement, and are not reserved for exhaustion, debility or inanition where they can be resorted to with advantage. It seems as though this universal and unlimited stimulation had come to be regarded as harmless, and that even physicians are not conscious of its ill effects. Stimulus is now always prescribed in cases of consumption or suspected consumption, and no doubt in some cases of tuberculosis, stimulants are useful in arresting the disease or in raising the system from a state of debility which favors its progress, but it must be prescribed definitely, and in suitable quantities. If we prescribe opium, we give quantities and intervals; we rarely, if ever, tell a patient to take opium, or morphine, or any other medicine except whisky, without these conditions, but this is a remedy which

appears to stand as an all-healing panacea, which in all quantities always does good, and can never do harm. It would not be difficult to present evidence which would be conclusive, that stimulus even in consumption is very generally so used as to favor the progress of the disease it is taken to arrest; that it has caused by its improper use a great many more cases of consumption than it can ever cure; yet this does not hold as argument against its judicious employment when indicated. We would not oppose its proper use, but we protest against its unnecessary recommendation to every body and for almost every thing. That it is used a great deal too much there can be no doubt, and that many cases of disease would terminate in recovery much sooner if less whisky and more food, air, exercise and other hygienic conditions were prescribed in its stead. Stimulus is not curative in the eruptive or continued fevers where it is now so generally used. Typhoid fever will pass through its stages and generally terminate favorably if sustained by food without stimulus; it is quite possible that many cases are protracted by the universal habit of stimulation, even if the cases are mild and require little or no medication. We have not proposed to say a word of its use by people in health, but simply to call upon the profession, the natural guardians of the public health, to avoid when practicable, endorsing an article as useful, which in health is always injurious and is producing untold misery, and in disease, except in rare cases, of doubtful value.

Interesting Case of Leprosy in Bellevue Hospital.

BY FRANK KING, MEMBER OF THE CLASS.

A patient, aged about twenty years, was admitted into the medical ward of Bellevue Hospital, in the fall of last year, suffering from leprosy, and shortly after was presented in the amphitheatre, to the medical class. He gave the following history: had been under treatment in several hospitals previous to being admitted into this; had recovered to a certain extent, but was again attacked. He was born in British Guiana, South America; his parents, as far as he was able to judge, were always perfectly healthy; they lived

in a small hut, in a low, marshy district; himself had always been in reasonably good health. When about ten years of age he was vaccinated with virus taken from a negro woman, whose mother had suffered from this disease.

Appearance at the time of presentation: intellectual, but listless, and with lack of animation; pale, emaciated, and appeared to take no interest in anything around him. His fingers and hands were distorted, and nearly destitute of nails, from previous attacks of the disease. The feet, or what remained of them, were exceedingly red, and had ulcers on the stubs of the meta-tarsal bones, for when first attacked the phalanges of the toes exfoliated by degrees, and were thrown off, till now he had only left about half of the meta-tarsal bones, and what is remarkable, this discharge of necrosed bone had occurred so often that the patient could foretel a considerable time, that there would be an exfoliation even though it had healed over. In this case the patient firmly believed his disease to have originated from the vaccine virus with which he was inoculated.

Leprosy is very frequently mentioned in the Bible as often occurring among the Jews; (it is impossible for me to say whether this is of the description there mentioned or not,) but in later times we do not hear of many cases of it recorded. The cause of leprosy is a special poison, the nature of which is obscure; unwholesome food, and irregularity in taking it, exposure to extremes, intemperance, want of sufficient exercise, and fresh air, are among its exciting causes. Congenital cases of this disease, some times occur, but they are exceedingly rare. Leprosy may often recover to a certain extent, sometimes spontaneously, sometimes with medical aid, but it is most commonly a disease which lasts during the natural life of the afflicted. It is often periodical, getting well in the summer, but breaking out again in the winter. I am unable to say that the case above recorded is of this description, but as he was presented in December, with the disease in progress, it is probable that it belongs to periodical cases. The treatment is mostly hygienic; proper food, taken with strict regularity, exercise in fresh air, cleanliness, and supporting medicines, constitute the staples of treatment.

Death from a Bee Sting.

MANSFIELD, OHIO, April 28, 1865.

Dr. Carpenter reports the following in the *Cincinnati Lancet and Observer:* "A very remarkable and fatal case of poisoning from the sting of the common honey bee, occurred near our city, on the 18th instant. The case is so unusual, I thought it best to make a note of the accident, and send the statement to you, for publication in the *Lancet.*

On the afternoon of the day above mentioned, I was summoned to the residence of Mr. John Krith, some two and a half miles north of our town to see his little son, four years old, who, I was informed, was suffering from spasms caused by the sting of a bee.

On arriving at the house, I was astonished to learn that the child had been dead thirty minutes, and was informed by the family that from the time the child was stung until his death, not over thirty minutes had elapsed. He had violent spasms from the first until he died.

The sting was immediately over the sagittal suture, one inch posterior to the articulation of the frontal with the parietal bone. There was but little redness, or swelling attending it. The mother had applied alkalies freely, but all to no avail.

Now the query naturally arises, in what way did the poison of that sting cause the death of the child so suddenly? Why should this terminate fatally so soon, when there are very many persons over the country every year, who are stung on various parts of the head, without experiencing any serious results?"

PHYSIOLOGY—*By Austin Flint, jr.*—We observe by an advertisement in the *New York Medical Journal* that a new book, on *Human Physiology*, by Dr. Austin Flint, jr. is soon to appear. It embraces a full and comprehensive plan, and will comprise three or four volumes, the first of which is announced for January, 1866.

☞ Dr. Clark reported to the Indiana State Medical Society a case of traumatic aneurism of the left carotid artery, which terminated spontaneously in recovery. The report is published in the *Cincinnati Lancet and Observer.*

Books Reviewed.

Renewal of Life--Lectures chiefly Clinical. By Thomas King Chambers, M. D., Honorary Physician to H. R. H. Prince of Wales; Physician to St. Mary's and the Lock Hospitals. From the third London edition. Philadelphia: Lindsay & Blakiston, 1865.

This volume comprises fifty-two lectures, chiefly clinical, on practical medicine. Three of which were delivered at the College of Physicians, and the rest at St. Mary's Hospital, by the author, in his capacity as teacher of Clinical Medicine in that institution, upon the following subjects:—Death and Life, Disease and Cure, Formation of Mucus and Pus, Typh-Fever, Small-Pox, Rheumatic Fever, Gonorrhœal Rheumatism, Pericarditis, Pleurisy, Hydrothorax, Acute Laryngitis, Capillary Catarrh, Pneumonia, Emphysema of Lungs, Pulmonary Consumption, Thoracic Aneurism, Disease of Heart, Purpura, Anæmia, Prominent of Eyeballs, Atrophy of Muscles, Chorea, Epilepsy, Hysteria, Spinal Paralysis, Sciatica, Albuminuria, Ascites, Diabetes, Mortification, Importance of the Digestive Organs in Therapeutics, Indigestion in General, Slow Digestion and Acidity, Pain in the Stomach, Eructation and Vomiting, Diarrhœa, Costiveness and Constipation, Dietetics, Corpulence, On Pepsine, On Alcohol, On Blood Letting, Answer to Objections.

We have copied the headings of each lecture in full, in order that our readers may judge of the character of the work. The two former editions of this work were named "The Renewal of Life," intending thereby to intimate that the main point for the physician's consideration in disease is the deficiency of vital action, and that all successful medical treatment is the renewal of that vital action.

The author regrets that the words were found strangely "open to misrepresentations" by several of the literary men engaged in reviewing the work, which has led to the unusual course of leaving out a great part of the title; but the publishers of this, the American edition, have thought it advisable to retain, in part, the title of the two former editions. It is written in the finest style of our language, which makes its perusal doubly attractive; and we know of no medical work we would more cheerfully recommend to the profession. The chapter upon Alcohol, is made very valuable by the introduction of some well conducted experiments

to show its effects upon the healthy subject. After giving the results in tabular form it says:

"On the whole, we may conclude that the effect of continued small doses of alcohol, is to diminish the vital metamorphosis, to make it irregular, and to induce, in healthy people, the necessity for crisis of evacuation. Its first action is upon the stomach, enabling more food to be digested, and increasing vitality; but if advantage is not taken of this first action, its secondary effect is a diminution of vital functions in general and of digestion among their number."

In his farewell chapter he says:—"I would call upon all to remember what a high matter it is that we take upon ourselves to handle. Man's life!—that which makes him God's viceroy on earth; for divorced dust and spirit cease to hold that lofty post. To aid us in our duty we are endowed with dominion over not only brute matter, which we can number and weigh, but over those unseen forces which our reason makes known to us; heat, electricity, vitality, and may be other yet nameless 'powers of the Lord.' Our business is to use them to lengthen and lighten man's earthly trial. He, in our profession, who is first in the scale of humanity is the first and best physician."

Hand-Book of Skin Diseases for Students and Practitioners. By Thomas Hillier, M. D., London. Philadelphia: Blanchard & Lea, 1865.

This is a work of 350 pages. The author, in his capacity as Physician to the Skin Department of University College Hospital, has had a large field of experience in the diseases.

In most of our medical colleges the advantages for clinical instruction in this class of diseases is limited, consequently a book of this kind is of inestimable value to the student. During the last few years our knowledge of skin diseases has been considerably extended, and the diagnosis of many skin diseases made positive by the application of the microscope. In this work a few original wood engravings, taken from cases under the author's care, have been introduced to illustrate the microscopical appearances presented by the hair and cuticle when effected by vegetable growth. In the treatment complexity is avoided, by not recording a number of nearly useless remedies, and by stating the principles on which

treatment should be based. In re-printing this volume, Neligan's "Atlas of Cutaneous Diseases" is referred to, where the disease is represented in it.

This book is written tastefully, and will give universal satisfaction. We recommend it to the profession as one of the very best.

Contributions to Practical Surgery. By Wm. H. Van Buren, M. D., Professor of Anatomy University of New York; formerly one of the Surgeons of the New York Hospital, Bellevule Hospital, and Vice President of the New York Academy of Medicine; consulting Surgeon to St. Vincent's Hospital, and the Woman's Hospital; member of the Pathological Society and the Medical and Surgical Society of New York; member of the U. S. Sanitary Commission, etc., etc. Philadelphia: J. B, Lippincott & Co., 1865.

The work before us consists of a collection of a large number of surgical cases, with their diagnosis, treatment, etc., selected from the professional periodicals in which they were originally published, with the hope that they may be of service to those interested in the pursuit of practical surgery.

If a larger number of our professional friends, who have extensive opportunities for witnessing the results of a large medical and surgical practice, would follow the praiseworthy example of Dr. Van Buren, and afford the profession the result of their actual practice, for a number of years, it would be of inestimable value to the medical man, and especially to those whose opportunities to a certain extent are limited.

All of the cases recorded are of the most interesting and instructive nature, as well as the most important in a surgical point of view. We think this work will afford pleasure and satisfaction to all who read it attentively; it is printed in pamphlet form, and comprises over two hundred pages.

On Sleep and Insomnia. By Wm. A. Hammond, M. D., of New York, 1865.

This book is in pamphlet form, and is divided into two parts.

Part first discusses the physiology of sleep. After giving a number of illustrations the author says: "The quantity of blood circulating through the brain during sleep is decidedly less than during wakefulness, and that sleep may be directly induced by arresting the flow of blood to the brain."

Part second speaks of the pathology and treatment of insomnia. In this the author records a number of very interesting and instructive cases with their treatment, in some of which the bromide of

potassium administered in thirty grain doses was found to be beneficial.

The book is a re-print from the New York Medical Journal for May and June. To those interested in this variety of disease, this work will be found exceedingly valuable. K.

Books and Pamphlets Received.

National Lyrics. By John Greenleaf Whittier, with illustrations by George G. White, H. Fenn, and Charles A. Barry. Boston: Ticknor & Fields, 1865.

Songs for all Seasons. By Alfred Tennyson, with illustrations by D. Maclise, T. Cheswick, S. Eytinge, C. A. Barry, H. Fenn, and G. Perkins. Boston: Ticknor & Fields, 1865.

Division of Os Uteri.—The *British Medical Journal* says that Dr. Gream opposes the views of Dr. Marion Sims respecting the enlarging of the os uteri by incision. Dr. Sims, says Dr. Gream, "repudiates dilatation as dangerous in all its aspects, and declares that division of the cervix is as safe as dilatation is hazardous." Dr. Gream adds, that he has been repeatedly consulted by women who had had the os uteri divided for sterility; and never, except in one single instance, has he known a case in which pregnancy followed; and in this case the woman aborted, because the artificial opening was so great as to prevent the womb retaining its contents. He could also, he says, relate of cellulitis, pelvic abscesses, etc., following incision of the cervix. Dr. Gream considers the only proper treatment is slow and carefully managed dilatation, in properly selected cases.

American Medical Association.

Members who desire copies of the Transactions for 1865, must forward their subscriptions, ($3,) immediately, as the edition will be limited to the number required at the time of going to press.

Wm. B. Atkinson,
Perm. Sec'y, Philadelphia.

BUFFALO
Medical and Surgical Journal.

VOL. V. SEPTEMBER, 1865. No. 2.

ART. I—*Transactions of the Medical Society of the County of Kings.*

REGULAR MEETINGS, MARCH AND JUNE, 1865.

Action of Medicines on the Blood-Vessels. By R. Cresson Stiles, M. D.

[Continued from August Number.]

The necessary result of the existence in the blood of a substance acting simply to relax the muscular coat of the blood vessels would be, in the first place, an increase of pressure in the arterioles and capillaries, in accordance with a well-known law of physics. This has been shown by Bernard to be the fact in several local circulations by cardiometric experiments. He has shown also that wourara, injected into the arteries of the sub-maxillary gland, produces paralysis of the motor nerves of the blood vessels, with consequent increased rapidity of the circulation and escape of the blood from the vein in jets, corresponding with the pulses of the heart.* Should these phenomena of paralysis be systemic, instead of local, general venous distension would ensue, did not the heart beat more actively and the lungs transmit the crowding blood more rapidly. But the chief stimulus to the rythmical action of the heart is its supply of blood. Even after the medulla oblongata has been severed, we can control the action of the heart by withdrawing blood from the system, and injecting it again into the the blood vessels; can thus arrest its motion, and restore it to action; or the same result can be effected by remitting or accelerating the movements of artificial respiration, thus diminishing or increasing the flow of blood to the heart through the lungs. The

* See Journal d'Anat. et de Physiol. 1864. p. 511.

heart is the servant of the tissues and organs; it is from the capillary circulation mainly that its impulses are derived; hence, increased capillary circulation necessitates, when the links of the vital chain are still unbroken, increased action of the heart, and the flame of vital combustion may thus be fanned to fever heat.

That the common properties of muscular tissue are affected in our most characteristic febrile disorders is seen in the excessive prostration, muscular pains and weakness; in the slipping down in bed, and in the muttering delirium (one whose energies find no muscular expression;) in the difficulty of swallowing, while the clearness of the intellect shows cerebral activity not seriously disturbed; in the tympanitic condition of the bowels, and the oppressed respiration. The increased pressure in the capillaries is marked by epistaxis, hæmorrhage from the bowels, petechiæ, and extravasations. After death from zymotic diseases, the softening of the organs generally, and particularly of those which are most vascular, is mainly due to the relaxation of the muscular tissue of the blood vessels, is to these organs what the absence of cadaveric rigidity is to the limbs and trunk. The heart is found softened, not from a fatty degeneration, as I have repeatedly assured myself, but from a loss of tenacity of the muscular fibres entering into its composition. It shows the zymotic influence more than other striated muscles, because its unresting activity and rapid nutritive changes call for a full supply of blood, and receive a proportionate supply of its poison.

A materies morbi in the blood, confined there by the membranes of the blood vessels (as all membranes have the power of secerning,) would be in closest contact with the muscular tunic of the smallest vessels, and would exert upon them its paramount influence; but this admission is by no means essential to the theory advanced. The muscular activity of the blood vessels is in constant play and delicate movement of adaptation to the pressure of the blood and the demands of the tissues, so that a poison diffused through the system would make its influence manifest by a disturbance of what is so nicely balanced, and on a tissue of such active nutrition and delicate re-actions.

For these reasons, and abundant circumstantial evidence of their validity, which it would be tedious to detail, I would propose

the following definition of fever: *An acute morbid activity of the general circulation and vital combustion, caused by a direct action of the blood-poison upon the muscular tissue of the blood vessels.*

It would require more time than the session could afford to spare, were I to enter at length upon the consideration of the objections which might be presented to this view of the generation of fever; on this head I will therefore be brief.

The School of Medicine at Paris teaches, through Monneret, that "disturbance of the nervous system appears to be the cause of the lesion of calorification and of the other febrile phenomena. How would it be possible to explain, in any other manner, the singular march which intermittents present, commencing and ending at fixed hours, and yielding with facility to sulphate of quinia. In the other pyrexiæ, specific causes appear to play the principal part, by acting on the nervous system. Everything leads to the admission that the vital forces, and the nervous system which is their support, are primarily affected. The study of the causes of the pyrexiæ seems to us to furnish a solid support to this hypothesis. Accordingly we see sometimes a local lesion, as a thorn buried in the flesh, sometimes a septic liquid, the virus of variola, of vaccinia, of marsh miasm, or the spontaneous alteration of the blood, provoke the febrile movement. At another time, it is to the disorganization of an organ that must be attributed the intense fever, which ceases only with the life of the patient." If it is on reasoning such as this that the hypothesis of the nervous origin of fever rests, its foundation is exceedingly insecure. How explain, says Monneret, in any other manner, the phenomena of intermittents? We would ask how the admission affords the least explanation? What recognized law of nervous action explains the commencement and cessation of intermittents at fixed hours, and their prevention by sulphate of quinia? Again, so far from the nervous system being the "support of the vital forces," comparative anatomy, embryology, and teratology teach plainly that the nervous system is an efflorescence, an exalted term, a perfection of organization, by no means fundamental to its manifestations of force. Again, "thorns buried in the flesh" are not a common cause of fever, and the "disorganization of an organ" must inevitably load the blood with the products of its decomposition. The remainder

of Monneret's arguments are equally favorable to another hypothesis.

Wood, while lending a guarded adherence to the nervous theory of fever, and the doctrines of Brown and Darwin, confesses their inadequacy to explain some of the most marked characteristics of the febrile state. He says, "Along with the diminished exercise of nervous function, is necessarily a diminution of all the functions dependent on it. We may thus partially explain the condition of the chill, but there is something more which we do not fathom; something, in which the chill of fever differs from other instances of nervous depression. Upon principles which have already been explained, the general prostration is succeeded by re-action, and the fever is thus established. But there is here also something more than re-action. There is the continued action of the cause—a diversified play of sympathies in one case, a widely prevailing influence from some unknown agent in another; and fever is not merely the *resilience* of the bowed-down system." That "widely pervading influence," that "something more than re-action," that "something more which we do not fathom," is a direct influence upon the muscular tissue of the blood vessels. Wood, in combating the doctrines of Cullen, says, "there is no proof whatever of the existence of spasm of the extreme vessels. On the contrary. in the cold stage, they are in a state of collapse from their inability to receive and circulate the blood, and in the hot stage the vessels themselves are dilated, as is obvious from the fullness and redness of the surface." Precisely what condition may be meant here by "collapse from inability to receive and circulate the blood," we will not stop to inquire, but will note merely the admission that impeded transmission of blood by the extreme vessels is a phenomenon of the cold stage, while their increase of caliber marks the pyrexia. Before the bearing of the properties of muscular tissue upon the explanation of the phenomena of fever had presented itself, and while I was interested in merely tracing out the effect of remedies, I had recognized, as a purely muscular property, what has hitherto been attributed to nervous action, the contraction produced by the sudden application of agents capable of relaxing the muscular fibres. In speaking of the effects of immersion of an umbilical artery in water at differ-

ent temperatures, I noted that an artery raised suddenly to a heat of 120.2°, Fahrenheit, manifested increased rigidity and firmer contraction; raised suddenly to 116.4°, Fahrenheit, it became somewhat contracted, but still more firm on exposure to the cold. Still, I had proved that a gradual elevation of temperature was attended by uninterrupted dilatation till the point of paralysis and complete relaxation was reached at 115°. I had noticed that on admitting suddenly the flow of a heated liquid into an artery the dilatation was preceded by a few minutes of contraction, and the same was true of the action of certain medicinal substances. The following series, taken from among my notes made in the laboratory, presents these facts in a clear light. The amount of a continuous flow from an artery was measured for successive periods of two minutes each. The temperature of the circulating liquid was 110° Fahrenheit.

The following are the amounts:

First	period	of	two	minutes,	3	fluid ounces.
Second	"	"	"		$2\frac{2}{3}$	" "
Third	"	"	"		$2\frac{1}{2}$	" "
Fourth	"	"	"		$2\frac{1}{3}$	" "
Fifth	"	"	"		$2\frac{1}{3}$	" "
Sixth	"	"	"		$2\frac{2}{3}$	" "
Seventh	"	"	"		$3\frac{1}{3}$	" "
Eighth	"	"	"		$3\frac{1}{2}$	" "
Ninth	"	"	"		$3\frac{1}{2}$	" "
Tenth	"	"	"		4	" "
Eleventh	"	"	"		4	" "

Here carbonate of ammonia was added in the proportion of fifteen grains to the pint to the liquid in the upper reservoir.

Twelfth	period	of	two	minutes,	5	fluid ounces.
Thirteenth	"	"	"		5	" "
Fourteenth	"	"	"		$3\frac{1}{2}$	" "
Fifteenth	"	"	"		$3\frac{1}{3}$	" "
Sixteenth	"	"	"		$3\frac{1}{3}$	" "
Seventeenth	"	"	"		$3\frac{1}{2}$	" "
Eighteenth	"	"	"		$3\frac{2}{3}$	" "
Nineteenth	"	"	"		4	" "
Twentieth	"	"	"		4	" "
Twenty-first	"	"	"		4	" "

The temperature of the liquid had fallen five degrees in the forty-two minutes that the experiment lasted, and mono-carbonate

of ammonia was evaporating during the eighteen minutes following its appearance in the artery.

That this mode of action is not confined to the blood vessels, was proved in the following manner: From the small intestine of an animal just killed I cut rings by transverse sections. These I adapted to an instrument, by which the ring of intestine was maintained at such a degree of tension by one arm of a lever, to which was attached an elastic band, that the other, or long arm, would mark on the divided arc of a circle the slightest contraction or relaxation of the circular muscles of the intestinal ring. On immersing the ring in water above blood-heat, the long arm of the lever always marked a short period of contraction previous to the continued relaxation, which period of contraction was shorter as the temperature was higher. Similar phenomena of contraction followed the immersion of the ring in solutions, which afterwards steadily dilated it. I found also that by successive increments of heat, as on several speedy withdrawals of the ring from the heated liquid after immersion, I could produce a more continous contraction, from which at last the relaxation was marked and rapid. Should like phenomena occur in the arterioles of a living being, as the study of the circulation of the blood in transparent tissues would lead to believe, a poison thrown suddenly into the circulation, having the property of dilating the vessels, would at first produce their contraction or a stage of chill, while, if its admission were gradual, rigors would not appear. Or, successive increments of poisonous action in the blood vessels, would either produce contraction or hold them in a passive, unchanging condition, till at last sudden and wide dilatation would be accompanied by the explosion of febrile disorder and paroxysmal symptoms in their greatest intensity. We have here an explanation of the so-called accumulation of excitability, the sudden discharge of which results in various paroxysmal attacks, to which the known laws of the nervous system afford no clue; we have at least analogies in the demonstrated laws of muscular action.

That the fever poison is always the same, or that the nervous system does not exert an important influence over febrile manifestations, no one will pretend. But that the cause of fever resides in, or acts through, the nervous system, is, from the preceding considerations, extremely improbable.

I would note also the looseness with which the terms *stimulation, sedation, exaltation and depression of vitality,* are current in the profession. That the necessary consequences of paralysis, or impaired contractility of the blood vessels, should be called stimulation, and the most complete disorder of function be denominated exaltation of vitality, shows an inadequacy or error in the interpretation of symptoms, the consequences of which must be exceedingly unfortunate.

Assimilation, growth and development, are the results of stimulation rather than disassimilation, atrophy and combustion, and an inflammatory affection which leaves an organ shriveled and cirrhosed, or a fever which wastes the system, and leaves it vacilating between life and death, is certainly not an exaltation of vitality.

* "THEORIES," says one of the most cautious of modern physiologists, "give to Science form and motion; serve to bind together facts which must be bound in bundles to be usefully employed; guide and incite explorers in the way of discovery." "Were a theory," says Prof. Grove, "open to no objection, it would cease to be a theory and become a law; and were we not to theorize, or to take generalized views of natural phenomena until these generalizations were sure and unobjectionable—in other words were laws—Science would be lost in a complex mass of unconnected observations, which would probably never disentangle themselves.', But, from a medical point of view, some justification may be desirable of apparent presumption in offering opinions in opposition to those of widely recognized authority. Fortunately, the question of the nature and causation of fever is, for one of such ancient date and high importance, peculiarly open to discussion. The testimony of George B. Wood, so long our highest authority in general pathology and therapeutics, is, that "there cannot at present be said to be any prevalent doctrine of fever. Each individual has the grounds before him and judges for himself, and probably most persons, seeing a little truth and some error in every exclusive hypothesis, have selected a portion of each and formed a sort of composite opinion, of which even the old Gothic doctrine of the humoral pathologists constitutes a part." Into that composite

* The portion which follows of Dr. Stiles' paper was read at the Regular Meeting in June.

opinion it seems to me necessary to introduce another element, one of pre-eminent importance, which has hitherto, as far as I am aware, been overlooked, or which it has been impossible, until recently, to fairly recognize. Moreover, it is not to mere clinical experience that we must look for a revelation of the laws of disease. The laws of chemistry were not discovered in blazing fires or crumbling rocks; the laws of hydrostatics and hydraulics were not revealed in torrents, tides, or ocean-currents; nor those of pneumatics and electricity in winds, whirlwinds, and thunderstorms; much less could it be rationally expected that the laws of pathology should be disclosed amid the much greater complexity and more multitudinous conflict of elements presented to the physician at the bedside of a diseased or dying patient. It is in the laboratory, and by artificially contrived experiments, that the clue has ever been spun and the torch lighted to guide through the labyrinths which hide the arcana of nature. It is to the recognition of this fact, with that other, that the true nature of an object of study is best determined by multiplying the points of view from which it is regarded, together with a general demand by the profession for a pathology which shall be something more than a descriptive catalogue of cases and specimens, that it is owing that those who are older in the laboratory than in clinical experience are heard with willingness in an assemblage of physicians. To oppose the teachings of medical authority may seem ungracious, and may, I am aware, prove disagreeable in proportion to the local sway of the authority opposed; but the trust of faithful study and truthful interpretation of the laws of organization is not therefore to be betrayed.

The theory and definition of fever proposed in a former paper, were the direct and natural result of experimental research, and I deem further experimentation the only proper response to objections which admit of experimental refutation; but enough has already been gained to justify an endeavor to place what has been acquired in such a light as to show its legitimate bearing. By so doing, I shall also better respond to the purpose of arousing discussion, which dictated the announcement of the titles of papers to be presented for a number of successive meetings.

The muscular tissue is one of unstable molecular composition,

and of delicate re-actions; it is but reasonable to expect it to be influenced by blood-poisons, or to suffer from impaired nutrition when that fluid is depraved. But I have proved by experimenting on blood vessels devoid of nerves, that their muscular tissue is directly and functionally affected by the composition of the liquids transmitted through them, and that the same liquids exercise a similar influence upon blood vessels which contain nerves. The presence of nerves does not in these instances interfere with the direct action on the muscular tissue. The experimental proof acquired, that substances which have the power of permanently dilating the blood vessels will previously produce their contraction by a direct action on their muscular fibres, renders the intervention of the nervous system in the explanation of the succession of fever to a stage of chill unnecessary. The introduction of the nervous system into the theory is in violation of the first rule of philosophizing, which demands but one sufficient cause. The most characteristic and protracted febrile disorders of zymotic origin are ushered in and accompanied by symptoms which point directly to impaired nutrition of the muscular tissue throughout the body, and *immediately* after death from these disorders the viscera generally, and particularly those which are most vascular, present the characters offered by a cadaver after the rigor mortis of the blood vessels has passed off; they are flabby, and, if abundant hemorrhage has not occurred, are gorged with blood. The heart is found softened, not by a fatty degeneration merely, but by a failure of nutrition of its muscular fibers; its unresting activity has called for an abundant supply of blood; but the blood has become a poison to muscular tissue, and the heart therefore shows the toxic influence more evidently than any other muscular mass. I will not detail the arguments of my former paper on this subject, but will endeavor to offer additional justification of the definition there given of fever. With the groups of symptoms denominated fevers I had nothing to do, but fever was there defined, "*An acute morbid activity of the general circulation and vital combustion, caused by the direct action of a blood poison upon the muscular tissue of the blood vessels.*" Increased activity of the circulation is generally regarded as the fundamental element in the febrile state, the remaining phenomena of fever being its natural results, or mere

concomitants. With the words "vital combustion" I associate no theory of animal heat, but simply express the symptom from which fever derives its name. With reference to its causation, I anticipate the following objections:

1st—That the prevalent nervous theory of fever better explains the increased activity of the circulation.

2d—That increased activity of the heart is sufficient to account for the phenomena of fever.

3d—That the definition is too exclusive, in that both the muscular and nervous systems have a share in the production of every fever; or in that, while certain fevers show a direct influence upon the muscular tissue of the blood vessels, others manifest no such influence.

I.—*No nervous theory of fever is adequate to afford an explanation of febrile phenomena.*

Were the nervous theories of fever, those which take precedence of all others in the estimation of the profession, at all adequate to account for febrile phenomena, an opposing theory could hardly claim a notice. The shortcomings of the former would be attributed to the imperfection of our knowledge of nervous action rather than to a defect in the theory itself. There is, however, not only ample room, but a demand for an explanation more in accordance with the increasing definiteness of our knowledge of the distinct powers and reactions of the different tissues and systems of the body. The fact that the activity of the nervous system is due to polar forces, forbids us to base a general disease upon its direct influence in all portions of the system. The poles of a magnet can as readily be supposed to be diffused throughout the whole bar, as the nervous system to produce direct excitement of the circulation in every blood-vessel of the body at the same time. The nervous system being an apparatus of relation, it is not within its province to cause directly a general disease of circulation and nutrition. It is on this character of nervous action that depends the therapeutic method of revulsion. Revulsive measures owe their efficacy to the facts involved in the following statement of Wood, that "there is in the human system only a certain capacity of nervous action, and a certain amount of blood. When

either the former or the latter is strongly directed to a particular part of the body, there is a tendency to its diminution elsewhere." No one will pretend that a different system of nerves is involved in the disease and in the counter-irritation by which it is relieved; and no physician, who has been able to draw any substantial and well-grounded conviction from his medical experience, will allow his faith in the value of counter-irritation to be shaken: he must throw aside the nervous theory of fever should it be found to conflict with so solid a conviction. But those cases to which counter-irritation is least applicable are those in which the grade of fever is highest. Such cases are even aggravated by revulsive measures. If we have not learned to "bring the system to the blistering point," by venesection and antiphlogestic remedies, when high fever accompanies an inflammation, it is not the fault of our teachers. Were the increased activity of the circulation in such cases due to nervous influence, the fever would be relieved by a concentration of nervous energy in the part counter-irritated, or at least diminished in proportion to that derivative influence, for there is in the system "only a certain capacity of nervous action." The counter-irritation may be severe, but the fever does not in the least abate. Idiopathic fevers likewise will run a steady course, in spite of endeavors to concentrate the blood and nervous energy in any particular part of the body. They will likewise run their course in spite of powerful remedies directed to the nervous system, and exerting upon that system a full measure of their characteristic physiological influence. Could fever thus evade all the influences acting upon the nervous system if it had its immediate origin in that system? But there are other and equally weighty arguments against such an admission. Bernard discovered that a persistent local hyperæmia and elevation of temperature without inflammation—in other words, circumscribed febrile phenomena—would be produced in various parts of the system by section of the sympathetic nerve supplying the blood-vessels of those parts, and he traced these phenomena to a dilatation of the blood-vessels dependent on their muscular tunic. Whatever support this discovery may seem to lend to a nervous theory of fever, it must be remembered that it proves that elongation of the circular musular fibers of the blood-vessels is one link in the chain of causation, and

if it can be shown that a direct influence through the blood upon the muscular tissue better explains the phenomena of fever, the introduction of the nervous system into the problem is an unnecessary complication. But, in the experiments alluded to, increased heat and vascularity follow closely the section of the nerve; whereas, in cases of severe nervous injury, hours elapse before the fever is developed, which, when developed, bears no relation to the severity of the symptoms of collapse, and may be violent when there has been no marked shock or nervous depression. No pathologist has ever attempted to predict the gravity of a traumatic fever from the amount of injury recognized to have been sustained by the nervous system. Again, death from protracted febrile disorders, as typhoid and typhus fevers, leaves the nervous system in a state of integrity which contrasts strongly with the softened and disorganized condition of the vascular viscera of the thorax and abdomen; the brain and spinal cord are neither softened nor discolored, nor in an appreciable manner diseased in structure, as the direct result of the most protracted fatal febrile disease. I have carefully examined quite a number of such cases without being able to detect any appreciable lesion. There is, therefore, no proof that the nervous system is affected in the production of febrile disorder, while the proofs of impaired muscular nutrition are very decided.

II.—*Febrile phenomena cannot be explained by increased activity of the heart.*

Boerhaave and Broussais taught that increased activity of the heart was the immediate cause of fever. One of Broussais' "Four Hundred and Sixty-eight Propositions" is, that "fever is always the result of an irritation of the heart, either primary or sympathetic." That excitation of the heart is one link in the chain of causation is very evident; but that over-excitement of the heart is of itself sufficient to generate a fever, few will be found willing at the present time to admit. Without dilatations of the arteries and arterioles (for the true capillaries of a single elastic tunic are not contractile, and these only are capable of yielding to the force of the heart), the heart has little power to increase the activity of the circulation. In such vessels excess of pressure may produce vari-

cosities, or give the vessel a beaded appearance, but the faculty of transmission of blood will not thereby be augmented. Pressure is a much less important element than calibre in determining the rate of flow in inelastic tubes like the finest arterioles. In experimenting on this subject, I obtained in two cases the following results: An inelastic tube, which discharged nine fluid drachms in thirty seconds, under a pressure of one foot of liquid, discharged thirteen and a half fluid drachms under a pressure of two feet; seventeen drachms under one of three feet; and twenty under one of four feet. A tube which discharged seventy minims in thirty seconds, under a pressure of one foot of liquid, discharged a hundred and ten minims under one of two feet; a hundred and forty-five under one of three feet; and one hundred and seventy under one of our feet. It required in these experiments about three times the pressure to double the rate of flow. But the pressure in the finest arterioles and capillaries varies within a very narrow possibl range. Bernard gives the following figures in proof of the narrow range of degrees of constant pressure within the arteries of animals of very different size. The fixed constant pressure in the carotid of a horse, a dog, and a rabbit, were respectively 110, 103, and 95 millimetres of mercury. The oscillations, however, due to the pulsations of the heart were much wider, being 65, 12, and 5 millimetres respectively; but even in the horse, whose disproportion in size to that of man is so great, the greatest momentary tension under the pulsation of the heart is little more than one-half of the constant pressure. In a dog, the constant pressure in whose carotid was 110 millimetres of mercury, and the maximum 165, the opposite carotid was tied, when the constant pressure rose to 165, and the maximum to 200. The maximum momentary pressure in this extreme exaltation of tension was not double the normal minimum pressure. But the force of the heart is lost in the arteries as they approach the capillaries, and the possible variations of pressure are there still further reduced; the heart's energy is too far spent in overcoming the resistance to the flow of blood in the successive ramifications of the arterial tree, with their barriers of friction and anastomosis, to influence the inelastic tension of the circular fibers of the blood-vessels. The height to which a column of mercury is raised in a vein is at best but a small frac-

tion of the pressure in the corresponding artery, when the valvular arrangement of the vein is not brought into play by the activity of the voluntary muscles.

If, however, the diameter of a capillary tube be doubled, the quantity of liquid discharged under a given pressure will be sixteen times as great. If a capillary tube by dilatation become one-fourth larger, it will transmit considerably more than double the amount of blood (512 to 625.) It is thus evident, on the simplest physical principles, how small a proportion of the increased activity of the circulation, from whatever cause arising, can possibly be due to increased activity of the heart, compared with the influence exerted by the increased calibre of the blood vessels, as regulated by their muscular tunic.

III.—*The nervous disorders presented by every case of fever are secondary or coincident, not fundamental.*

That a poison in the blood, or an alteration of its composition which has the power to affect the nutrition and activity of the muscular tissue, would exert a direct influence on some portion of the nervous system also, is a very rational presumption; that the nervous system should feel and manifest the affection of the muscular system is inevitable; both these admissions are entirely consistent with the theory advanced, which, nevertheless, requires a direct influence on the muscular tissue of the blood vessels as the fundamental element in every case of fever. The arguments from counter-irritation, and from the relational office of the nervous system, apply to all cases of fever, whatever may be their distinctive peculiarities, and point to a common mode of generation independent of nervous origin. The nervous system is not constituted in dependence upon positive amounts of generally distributed force, but re-acts to variations in amount and distribution. Its phenomena do not essentially vary in the robust and plethoric, and in those whom chronic disease has rendered almost exsanguined. A temperature of forty degrees to a hand at sixty is no more sensible than one of sixty to a hand at eighty. Hence the various forms of tolerance to which the nervous system may be subjected. Abnormal distribution to it of blood may produce the most violent symptoms, as in insanity, epilepsy, and eclampsy. So delicate is

the re-action of the nervous system of the highest organisms to foreign substances reaching it through the blood, that the resulting nervous phenomena present the greatest variety—even idiosyncrasies, those disheartening nervous problems, are thus rendered possible.

The material cause of the diseases known as fevers is of very various origin, and doubtless of very diverse molecular constitution. How different the source of the poison in the simple irritative fevers, in intermittents and remittents, in yellow fever, in typhus and typhoid, and in the exanthemata! Yet the description of the symptoms which usher in one of these is applicable alike to all, and in our most authoritative treatises on special pathology the expressions, "general discomfort, weariness, and languor, deficiency of appetite, furred tongue, disordered taste, soreness or numbness of the limbs, pain in the back, headache, mental depression, irritability, want of sleep," or their equivalents, form the common tableau of prodromata. How different this from the distinct and specific symptoms by which we recognize the very commencement of medicinal or morbid action on the nervous system! Lastly, the fever formed defies all attempts at arrest, or essential modification, by remedies addressed to the nervous system. The cause of the fever may lie, indirectly, in severe mental strain, or in some overpowering sorrow; the cause may persist in all its force when the fever is aroused, and often happily removes the system from nervous sway, and saves a life which would otherwise fail to sustain the nervous tension. A blood-poison has been produced through the agency of the nervous system, which, by acting on the muscular tissue, has released the system from nervous control, and generated the fever. The admission of such an element is a necessity, for "fever is more than the resilience of a bowed-down system," and is warranted by the fact that the production of vitiated fluids through nervous agency is a matter of not unusual observation.

I have reserved till now the nearest approach to experimental demonstration which I have been able to obtain, that in the fevers the muscular tissue is directly affected, in order to give the facts their due prominence. This was accomplished in the following manner:—Portions of umbilical arteries from a cord just divided

were dissected out, as is easily done, and attached to ligatures. Blood was then drawn by cupping from a patient suffering from typhus fever, either simple, or complicated with inflammation. The blood was defibrinated and placed in one or more test-tubes. Healthy blood was treated in the same manner, and the prepared portions of umbilical artery were suspended in the diseased and in the healthy blood, and exposed for a given time to a temperature of 100° Fahrenheit. In each experiment, after an hour's immersion, it was easily recognizable which portions of artery had been suspended in the febrile and which in the healthy blood, by the flaccidity, discoloration, and lack of vitality manifested by the former, and the healthy appearance and re-actions of the latter. Such results as this are of more value than long and labored arguments, and will, I hope, serve as an excuse for shortcomings in that respect.

ART. II—*Abstract of Proceedings of the Buffalo Medical Association.*

TUESDAY EVENING, July 11, 1865.

The Association met pursuant to adjournment, the President, Dr. Ring, in the Chair. Present, Drs. Rochester, Congar, Strong, Gould, Samo, Boardman, Smith, Johnson and Peters.

The report of prevailing diseases was taken up, when

DR. ROCHESTER called attention to the prevalence of whooping cough, and to the fact that it was a much more dangerous disease in very young children than was generally supposed. He thought physicians should take pains to let it be known, in the families which they attended, as parents were very apt to consider it a disease of little moment. As to treatment, he had been inclined early in the epidemic to rely chiefly upon bromide of ammonium, but further experience had led him to place a less high estimate upon its efficacy. Not wishing to recommend a remedy too hastily, he felt bound to put on record the fact that it had often failed in his hands. In one case where the bromide of ammonium had failed, he had had very good success with the combination of sulphate of zinc and belladonna.

DR. BOARDMAN had seen several severe cases of urticaria.

Some discussion also took place concerning the treatment of whooping cough, by those present—the weight of evidence seeming to be in favor of the sulphate of zinc and belladonna.

Dr. Peters inquired whether the gentlemen present had seen in any cases, poisoning from opium take place without sleep being produced. Was induced to make this inquiry from having had occasion to note the effects of large doses of morphia. Wished also to call attention to the danger of administering this drug at the same time with chloroform, which he believed was often done with too little care. Referred especially to morphia because he believed it more dangerous than other preparations of opium.

Dr. Boardman had seen one case of a gentleman who had been accustomed to large doses of opium, but who took too much one afternoon, was attacked with severe and persistent vomiting which lasted all next day, death taking place in about twenty-four hours. Had no doubt death might result from opium without sleep having been induced.

Dr. Rochester said little children sometimes died from the effects of opium when there was no sleep until the last. In a certain class of cases opium often produces convulsions. Thought it often had an enfeebling and prostrating effect, and should be given, especially to children, with great care.

Dr. Strong had always considered opium to have a stimulant, instead of a prostrating effect. At two hours' intervals, in moderate doses, he had always got a stimulant effect. Believed it could be given in *some* dose to any child.

Dr. Rochester did not intend to say it should never be given to children, but only that it should be used carefully. Wished to be understood as saying it was often given too long, especially in cases of cholera infantum. It interfered with alimentation, and hence was weakening when given for a long time. Believed it was used too much by all physicians of the present day; and while he would not by any means undervalue it, he would urge care in its use. In regard to the use of both opiates and anæsthetics, would say that they could be used together, and formed valuable adjuncts to one another.

Dr. Smith related a case of convulsions following an attempted abortion, which had occurred in his practice, when he adminis-

tered enormous doses both of laudanum and morphia without effect, until he administered chloroform, when the woman slept well.

Dr. Johnson related a somewhat similar case which he had seen. Considered the two remedies very valuable in such cases.

Dr. Peters was well aware that the effects of chloroform were prolonged by opium, and *vice versa*, hence the danger. Did not intend to object to their being used together, but desired to point out the danger of giving chloroform after large doses of opium had apparently failed.

The Association adjourned.

Tuesday Evening, August 1st, 1865.

Association met pursuant to adjournment, the President, Dr. Ring, in the Chair. Present, Drs. Rochester, Samo, Trowbridge, Greene, Gleason, Cronyn, Wetmore, Johnson and Peters.

Drs. J. N. Browne and E. E. Little were elected members.

Dr. Trowbridge presented, through the Secretary, a copy of the tables of height, measurements, etc., of men examined in the Provost Marshal's office, which he had been required to make to the Provost Marshal General.

On motion of Dr. Rochester the thanks of the Association were presented to Dr. Trowbridge for the document, and the Secretary was instructed to preserve it in a form convenient for reference. Its great size renders its publication impossible.

Reports on prevailing diseases being called for, Dr. Rochester reported cholera infantum, whooping cough, and cerebro-spinal meningitis, as prevailing, and typhoid fever as measurably frequent. Thought cerebro-spinal meningitis more frequent among females than males, and among children from 8 to 18 years of age, than adults.

Dr. Cronyn had not seen a single case of uncomplicated whooping cough. Reported several cases of cerebro-spinal meningitis.

Dr. Greene had seen a good deal of whooping cough, and had found a good remedy in the following formula:

℞ Ground Coffee, ℥iv.
Water, - o ss.

Make a strong decoction, to which add

Tr. Veratrum Viride, ℥ij.
Fluid Extract of Conium, ℥iv.

Dr. Ring reported the prevalence of typhoid fever, cholera infantum, cholera morbus, etc. Had tried with good effect in whooping cough, bromide of ammonium in syrup of tolu.

The Association adjourned.

Note.—The Secretary inserts here an account of a curious and interesting case which was related by Dr. Whitney at the December meeting, but has been delayed by Dr. W.'s illness.

Dr. Whitney related a case of partial paralysis of the arm consequent upon caries and exposure of the nerve of the lower dens-sapientia of the right side. The patient was a thin, spare woman, about forty years of age, of decided nervous temperament—had had very little pain in the tooth, but for several weeks or months, considerable pain in the right side of the neck, extending to the shoulder and arm, with rigidity of the muscles, and, at times, immobility of the arm. On raising the hand to the face to locate the pain, it fell to her side. On coming in contact with the nerve in probing the tooth, the effect was more manifest in the arm than in the tooth, by painful twitching of the muscles, with an inability to raise it, so much so that she took hold of it with the other hand. He was now fully satisfied that the trouble in the arm, that had nearly deprived her of the use of the needle, and given her so much anxiety, and had been treated with fomentations, lotions, friction, etc., was referable to the condition of the tooth by *reflex* action. The usual mode of devitalizing and removing the pulp and filling the cavity entirely cured the other annoyances at once.

Joseph A. Peters, Secretary.

ART. III.—*Cases in Orthopædic Surgery, with remarks and illustrations.* By J. F. Miner, M. D.

Some attention to the orthopædic department of surgical practice for the past few years, has furnished cases illustrative of almost every deformity common to surgeons; to give a description of some few representative ones, their treatment and its results so far as known, will be the object, not however expecting to present anything essentially new. If any interest is attached to them, it must arise mainly from the fact, that they have been treated in

private practice, without the machinery of orthopædic institutions or attendance other than the parents or friends, and with such instruments as can be improvised by most surgeons, whatever may be the field of their operations. That better results might have been obtained under more favorable circumstances is quite possible, but such as they are, it will be the object to furnish, together with a description of the cases and the means adopted for their relief or cure.

Everywhere surgeons meet with deformities which from the circumstances of the case they must treat as they best may, or wholly neglect, as is too often the case, from want of settled opinions as to what may reasonably be expected, conscious that much more is claimed by special practitioners in these diseases than they themselves are able to realize, and also from a sense of inability to efficiently treat such cases with the means at command for mechanical support, rightly regarding this as the chief dependence.

Deformities of the spine are perhaps more frequent than of any other part of the body, and constitute a condition of disease concerning which there is as great a variety of opinion among surgeons as exists concerning any one malady. It is quite useless to discuss the various theories which have been proposed as to the causes of this disease; that it may arise from a variety of influences, and is not uniformly dependent upon any one, is quite certain, though the idea that scrofula is the almost uniform cause, has gained a wide circle of supporters. The notion of "disturbed muscular antagonism," has been adopted by some and made to constitute the basis for a special system of practice. Muscular contraction has also been proposed as the chief cause of deformity. Change in the bone or cartilage, has also been regarded as the great cause of deviation in the position of the spine.

Whatever may have been suggested as the invariable cause, it appears certain that it springs from different causes and is associated with a variety of morbid conditions, all attempts to trace it to any one cause in its various forms having thus far failed. It often arises from both constitutional and local causes, and is not invariably associated with any one constitutional bias. Early diagnosis is of the first importance, since it is possible in this disease to prevent, what it is impossible to cure, though "Spine Doc

tors" propose to cure almost every condition of deformity which can be conceived, while surgeons who observe the disease quite frequently, rarely expect to obtain such astonishing results. As early diagnosis is essential in preventing a disease which cannot be cured, so a careful differential diagnosis is necessary in making prognosis as to the results of treatment—in estimating the amount of relief which may be expected from the best directed efforts. Recent partial deviation of the spine can usually be restored in cases without well marked constitutional bias, and without organic change in the bones or articulating cartilages, while cases of long standing which are associated with constitutional disease, or those which have attained to great deviation and become accustomed to the unnatural position cannot safely be restored to the original form.

It has been observed that curvature arises from different causes, and is not uniformly associated with the same constitutional bias; still it may be true that curvature more generally progresses to a condition of organic change in the vertebral bones and cartilages when it occurs in scrofulous subjects. As it arises from various causes and is associated with constitutional tendencies, or may be present without such bias, so it presents a variety of therapeutical indications which might perhaps be considered in groups to some extent, but are yet almost as numerous as the cases themselves, no two presenting the same symptoms or showing themselves amenable to the same means of relief—same medical treatment, or even the same sort of mechanical support. One case will demand rest as absolute as possible for a time, while another will be benefited by exercise and air, or one will be relieved by tonics and stimulants, while another would derive no benefit from such sources.

When curvature is present and the symptoms become unmistakable, the practice is still common to attack the neighboring tissues violently and apply seatons, moxæ, leeches, blisters or actual cautery even, with the view that a derivative action will be obtained—a new inflammation set up in contiguous tissues to the relief of the cartilage or bone, whichever is supposed to be the seat of actual lesion. Clinical facts are presented to sustain the correctness of this practice, and some even of our recent stand-

ard works recommend its adoption. Without stopping to consider the grounds of objection in detail, it will be sufficient for our present purpose to say that this is rarely if ever necessary or useful, and is believed to be unphilosophical and absurd, based upon a false notion of the action of such remedies and of the true pathology of curvature of the spine. Objection, however, rests mostly upon theoretical grounds, for it may as well be confessed, that such an expedient has never been thoroughly tried, by the author and its effects watched. It is a part of the system of "counter irritation" which is gradually and fortunately disappearing from the curriculum of medical practice, or being modified to a consistancy which makes it less objectionable and injurious. Rest in horizontal position is insisted upon as the *sine qua non* of relief by many practitioners; and this position is much more tenible and rational, though this must be adopted after a great many exceptions and qualifications. In extreme cases with great tenderness and disorganization, it would perhaps be advisable, for a time, but this practice of absolute rest in the horizontal position until relief is obtained, must be modified to suit the circumstances and constitutional peculiarities of different cases.

Mechanical support is undoubtedly the chief reliance in cases which admit of its application; this, too, requires great care in its adoption, that we attempt all that is safe, and avoid a harshness which is often injurious and even dangerous. The chief indications are to relieve pressure, to restore form and afford rest, and this is to be accomplished without prejudicing the general health. To how great an extent these objects may be gained depends upon a great variety of circumstances, which all will readily appreciate.

Ferdinand Haitz, a little boy six years old, was presented for advice in 1864; was brought to the office perfectly paralyzed, from spinal curve, which was situated in the lower cervical region. He was pale and emaciated and completely unable to use either feet or hands; upright position was painful and could not be borne for any considerable time, the weight of the head being too great for the spine to support. He had been treated for several months by various practitioners, mostly irregular, and from the spinal and sternal regions were removed two heavy iron pads, poorly covered, and every way uncomfortable as well as wholly incapable of any

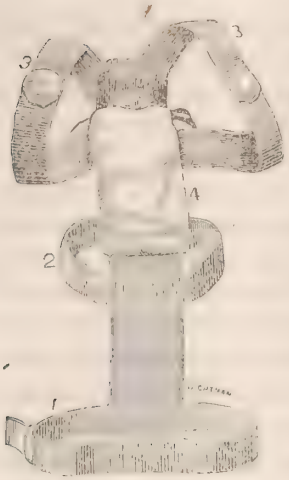
good. These were firmly bound to each other, and to the patient, by leather straps, thus compressing the chest, and showing how absurd and barbarous an expedient it was possible for an ignorant practitioner to invent, with no other object in view than to "do something" for a malady of which he knew nothing. The history and symptoms were of scrofulous disease of the spine, and a guarded prognosis given. At the urgent request of the parents, though everything looked unpromising, a splint was improvised, which I have since improved, but which even as first used, was productive of great benefit. Two weeks from the day the patient first called, completely incapable of standing or using the arms, he was brought to see me, or rather to show me that he could not only stand but walk a few steps unaided; this improvement continued until with the aid of the splint he could walk comfortably in the street or in the garden, which has of late been his favorite resort. He has not been uniformly well, and the condition of deformity has not been cured. He still wears the splint as made and applied at his first visit, and has never been able to leave it off, not even while in bed, has ever required the extension and support which it effects. The splint was made by using a flat, thin splint of hard wood, which had previously been used for a straight thigh splint, in dressing a fracture for a little boy. This passed up the spine, was well padded to protect the parts; upon the upper end was screwed a steel spring taken from a truss, this being fitted as well as possible, and extending over the head. The lower end was securely fastened by adhesive plaster, and the head swung from the upper spring by bandages, &c., &c. Rough and imperfect as was the appliance, the mother states that he is greatly attached to it, and as they have limited means, he still wears the splint, and it answers, perhaps, the object as well, or even better, than more expensive and pretentious appliance.

The improvement was so marked that an ambrotype was requested, showing the manner of supporting the head, which was taken a few weeks after treatment was commenced. The cut will perhaps give a better idea of the appearance of both the patient and dressing than words :

That similar results can be usually attained, is not probable. This case is selected as one of remarkably satisfactory results, and not as a representative case so far as benefit by treatment is considered. That the improvement will continue permanent is not certain; there have been times when all the symptoms were aggravated, and a condition of the greatest prostration and anæmia present, exciting fears of even a fatal termination. These have thus far gradually disappeared, and the little patient become sprightly again; but a danger still exists that change in the bones and consequent pressure upon the spinal cord may reach a degree inconsistent with life.

The great improvement upon partially sustaining the weight of the head, shows the value, in proper cases, of extension in relieving the pressure upon diseased surfaces.

M. S., of a neighboring town, is another illustrative case where sustaining the head was productive of the most decided benefit. This young lad, twelve years of age, had no marked deviation in the spine, but a tenderness in the cervical region; could not walk or play but a few minutes, before he would lay down to rest his neck. The head was turned to one side, making wry-neck, in appearance, while all sudden motion was painful. In this case extension or support was afforded in a more perfect manner, though upon the same general plan. Finding that similar cases were frequent, an effort to supply mechanical support resulted in the manufacture of an instrument more easily applied, more comfortable and more efficient, to which might be added the spring for sustaining the head, or this might be omitted in cases where the curvature was lower down the spine, or did not require that the head should be sustained. This was made of steel springs, fitting accurately to the spinal curve, and sustained at the base by a firm steel support passing around the pelvis, somewhat in the style of a truss. The following cut represents the body of the insument, and by it a perfect idea of its construction may be gained:



1. Pelvic bands.
2. Abdominal elastic band.
3—3. Shoulder straps.
4. Pad for pressure upon seat of curve.

This instrument can be made by mechanics who follow other trades; is stuffed so as to be comfortable, and even to afford relief to the youngest patients. It is made to fit accurately to the spine, and with it may be treated with some benefit all cases of spinal curvature, capable of mechanical relief. A pad is placed which may make pressure where required in posterior curve; lateral deviation is rectified by having an arm placed on either side as different cases may require, while an extending spring coming up over the head, will afford means of support in cases of curve or disease in the cervical bones, or in any cases where it is desirable to relieve the weight of the head. This instrument may be made useful, with its modifications and additions, in the treatment of a great variety of cases, and is to be preferred to more complicated machines in some respects; is more simple, less expensive, more comfortable to the patient, and for these reasons, if for no other, more likely to prove an available adjunct in the treatment of the various deformities of the spine.

Small children often suffer from this disease, and use of any retentive apparatus is regarded as uncomfortable, and with them, almost impossible of application; this is a mistake: it is not infrequent to obtain the greatest relief. *Extension* is often desirable, but *support* is useful; support which shall secure rest, without extending force, is oftentimes curative. As in fracture of bones, so in curvature of spine, rest will allow of cure, not, perhaps, without deformity, but, nevertheless cure, while in many cases, it is believed that to attempt perfect restoration of form, would be to insure permanent disease.

It will be observed how very imperfectly the object of this paper has been accomplished, so far, at least, as report of cases with results, good and bad, was designed; this failure is from want of space to publish, and not from change of purpose. Some

good results have been reported, and it will be proper to add that failure to accomplish any great good, has often been met, and sometimes fears of having done harm even, entertained.

It would not be doing full justice to the recuperative powers of nature, should omission be made of the fact, that she oftentimes accomplishes most signal cures in this disease wholly unaided by art. A case which was supposed to be hopeless, was some years since admitted to the Buffalo General Hospital. The young man was paralyzed in the lower extremities, and nearly helpless; was examined, observed and pitied, but no attempt was made at cure, either by myself or my colleagues. Various expedients were at different times proposed, but none adopted. The curve was in the upper dorsal region and the deformity great. Nature at length commenced to repair or to adapt to existing conditions, and the young man now walks without cane or crutch, and attends to the usual duty of a grocery clerk with acceptable ability. He was an inmate of the hospital two years or more, and finally discharged himself for more lucrative employment, an illustrative example of the influence of time in effecting cures, which had treatment—mechanical support, for instance, been applied, would have been regarded as signal triumphs of art.

ART. IV—*A Case of Acute Poisoning by Arsenic, ending in recovery.*
By J. R. LOTHROP, M. D.

It will assist a clear understanding of the following details of the case, to relate the facts which led to a suspicion of poisoning by arsenic. A boy in the employ of a farmer, an inmate of his family, was known to have bought arsenic. On the morning of Wednesday, August 16th, the wife and a son of the farmer breakfasted together. Both were soon attacked with vomiting. The wife died that night with symptoms of poisoning by arsenic, the son, though made quite sick, recovered by afternoon. At noon the farmer, a physician called to attend the wife, and a little daughter whose case is related below, dined together, and were all soon after attacked with vomiting. In the case of the little girl the symptoms were serious and long continued. The others soon

recovered and felt no ill effects. Upon examination Dr. Hadley found arsenic in the liver of the wife, thus establishing the fact of poisoning by arsenic.

On Wednesday, August 16th, in the evening I was called to see a case of suspected poisoning. The patient was a girl of about ten years of age. The following facts were made known to me when I first saw her. In the morning she went from her home, at her grandmother's, to her father's farm, a few miles out of the city, dined and returned in the afternoon about 5 o'clock. Soon after her return she was attacked with vomiting, which continued at short intervals. She stated that she was taken sick soon after eating her dinner and vomited several times before her return. From something which was said about arsenic having been bought the day before by a boy at the farm, the family became fearful that she was poisoned. When I first saw her she was lying upon a couch, apparently well, with no heat of skin or increase of pulse. Soon after she vomited with considerable retching and ejected a small quantity of watery liquid, appearing after it was over as comfortable as before. This was repeated in a short time, perhaps fifteen or twenty minutes. The vomiting was not preceded by much nausea. She would appear free from it till just before vomiting occurred, then she would complain of being sick and immediately vomit.

A mustard emetic had been given before I saw her, and she was allowed to drink water freely. As soon as it could be procured, the hydrated sesquioxyde of iron was freely given and frequently repeated, with a liberal allowance of water. The vomiting continued at short intervals till nearly midnight, when the intervals became longer, and towards morning it ceased, and the patient slept. At 6 A. M. Thursday, the trouble seemed over, and I began to feel that there would be no return. I then ordered powdered magnesia to be given, with the intent to clear the intestines of whatever they might contain, of iron and arsenic, and to forestall all danger of fresh absorption. Very soon after the magnesia was given vomiting began anew, and continued till the next day, Friday, when about noon it ceased entirely. As soon as the vomiting was renewed the iron was again given, and its administration kept up till noon of that day, Thursday. At that time it was dis-

continued, as it seemed probable that the limit of its usefulness as an antidote had been reached, and its farther use was more likely to irritate the stomach than to be attended with benefit. The giving of magnesia was then resumed mainly for the purpose of acting upon the intestines to expel the iron and arsenic which might be in them. For though it might be supposed that but little iron would pass the pylosus during the continued vomiting, in fact, a considerable quantity did pass, and was afterwards expelled; and as to arsenic, though it was probably taken in solution and would not therefore, if let alone, be likely to be found undissolved in the intestines, if the iron had the power to render it insoluble it would be found there with it and be expelled at the same time. The magnesia in fine powder was given in milk, and though apparently all vomited, yet enough passed into the bowels to produce after a time, aided by an enema, a pretty free evacuation of their contents. Magnesia was given frequently till late in the evening and then discontinued.

Up to this time, late Thursday evening, with the exception stated above, vomiting had persisted at frequent intervals, the intervals being seldom over half an hour, and often but fifteen minutes. It had continued then for more than twenty-four hours. At first, though there was almost no distress, even with considerable retching, as it went on both increased, and the patient began to complain of pain and soreness, and at times there were streaks of blood in the liquid ejected. There was no tenderness upon pressure, and the abdomen was much retracted. No attempt had as yet been made to restrain the vomiting; inasmuch as it had appeared salutary, and had not been attended with so much discomfort or general disturbance as to demand interference. Now, however, the general disturbance was considerable; there was much heat of skin, a rapid and irregular pulse, having increased till it counted one hundred and twenty per minute, and in addition to the distress spoken of, the patient was excited, restless and thirsty, calling for water, and seeking relief from the heat of skin by frequent bathing. Deeming it proper to attempt to restrain the vomiting, I gave, by the mouth, an eighth of a grain of morphine, and repeated it every half hour, three or four times. The effect of this was seemingly to make the vomiting more frequent, and a

failure to control the other symptoms. I then made a subcutaneous injection of morphine, using a quarter of a grain. This was followed by a decided improvement. In two hours I repeated the injection, using half a grain. After this still more improvement was manifest. The vomiting did not cease, but the intervals were greatly prolonged, the retching was much moderated, and the distress removed. After midnight, when the last injection was made, the patient slept somewhat, was much more quiet and comfortable, and the pulse became slower, being reduced to about one hundred per minute. During the forenoon of the next day, Friday, although she vomited occasionally, she had no pain, and was inclined to sleep, being drowsy and delirious. About noon, as the effect of the narcotic had worn off, I made another injection, using one-third of a grain. Soon after this was given vomiting ceased, and by evening the little patient appeared bright and natural; seemingly well. She slept well the night following, and during the next day was ready to take light food and able to run about.

Such in considerable detail is the history of a case which I watched with great interest. Evidently the quantity of arsenic absorbed was small as there was no purging, and there was no very marked prostration, nothing approximating the collapse seen in fatal cases. Yet there was enough to peril life and to create some doubt as to the result. The symptoms were most intense during the time within which severe cases end fatally, for death occurs generally in such within forty-eight, and may take place in a few hours. There was no irritation of the urinary passage or strangury, though the urine was scanty. An eruption of rather dark spots on the face was noticed, but it was not looked for on the body. The heat of skin was somewhat variable, coming in flashes, and there were slight spasmodic movements. The tongue became furred and red at the tip and sides, but not dry or fissured. The thirst was great, and not easily satisfied, as water was soon rejected. The symptoms continued through forty-eight hours. The books speak of a burning as of a consuming fire, and excruciating pain, but it is probable that an intense distress and restlessness such as we see in cholera, will more often be observed, though the act of vomiting itself may become for the time painful.

Vomiting.—Arsenic is said to cause vomiting by acting as an

irritant to the stomach. Yet it causes it as certainly when introduced into the system in any other way. Irritation cannot be the whole of its action in producing vomiting, and in fact is probably but a small part of it. The signs of irritation are not very apparent after death. Traces of inflammation of the stomach must be very rarely observed, or in fact any traces. The softening of the mucous membrane so often mentioned is probably more due to the action of the gastric fluid, after death, as it is found in the stomach in large quantity usually in fatal cases, and the fluid vomited is often sour to the smell and probably taste, is in fact largely the gastric juice—the stomach being excited to secretion, either in consequence of prolonged vomiting, by no means uncommon, or because there is an attempt at elimination. The same may be said of the purging. The copious evacuations may be an effort to eliminate the poison, rather than a consequence of its action as an irritant. The cases in which a large quantity of arsenic is probably taken with food, and afterwards rejected by vomiting without causing any very great disturbance, hardly more than would be caused by an ordinary emetic, seem to be exceptions. If the vomiting is not merely mechanical in such cases, but is the result of absorption, how is it that they will get off with just that amount which will vomit, but not dangerously poison? Many persons partake of the same poisoned substance, yet one only dies, and the rest are not seriously affected. The difference probably is in the quantity of food taken, and the state of the arsenic. Arsenic taken unsolved into the stomach is more likely to cause serious if not fatal effects than when in solution. Some of it adheres in masses to the stomach, and is therefore not expelled with the food. The chances of absorption are much greater then, than when it is in solution and mixed with food, for only that small amount which comes in contact with the stomach walls is absorbed, an amount in many cases just sufficient to disturb the system to vomiting, and thus ensure safety. But again the quantity of food taken still further affects it, so that the less food taken the greater the danger. Something like this will account for the differences in cases where the poison has been taken under circumstances which seem to make it certain that all will be affected alike. When masses cling to the stomach absorption goes on for a time

certainly, but as will be seen from what follows, we may doubt whether the stomach retains the power of absorbing a long while after vomiting sets in. If water is not absorbed there is little reason to suppose any other substance will be. An inference from this would be that the poison must do its fatal work early, and that the absorption whether sufficient in amount to destroy life or not must take place before much vomiting has occurred.

In the case described it was observed that the quantity vomited always exceeded the quantity taken. This was true when water was taken freely, but was much more evident when water was sparingly used. After vomiting had continued for some time and less water was taken, being purposely withheld in large quantities, from a notion, erroneous probably, that the vomiting would thereby be made less frequent, at least twice as much liquid was ejected by the stomach as was taken in. The stomach evidently secreted a part of the liquid, and this fact explains in a great measure the insatiable thirst which torments the patient. There is not only no absorption of water to satisfy the thirst, but the water of the blood is constantly drained away. Thirst is a general want, though located in or recognized by the stomach. The body calls for water when none can be supplied, hence the intense thirst, and hence too the dryness and burning of the skin which is often experienced. On this account bathing the skin is very grateful. The fact of this secretion of liquids by the stomach explains in part the enormous distention of the stomach by accumulated fluids, which is very frequently found in examinations after death from poisoning by arsenic. As the powers fail the vomiting ceases, but the secretion goes on for a time. No doubt a portion of the liquid is taken in to satisfy thirst and not rejected. We might infer then that the urine would be scanty and even suppressed, adding uræmic poisoning to the other morbific influences. Secretion, perhaps it would be better to say excretion is active by the stomach and bowels, but the functions of all other excretory organs are disturbed in consequence. The blood loses its vital properties and becomes incapable of maintaining life. All this must be understood to be in addition to or a part of the morbific influence of arsenic, whatever that is.

Elimination.—Probably all organs which eliminate water aid to

rid the blood of the presence of arsenic. I have already suggested that the stomach and the whole intestinal tract were probably active in its excretion. But the kidneys probably effect by far the greater portion in the work of taking it from the body. During the earlier, i. e. during the first twenty-four hours, the quantity escaping in the urine is largest, but quite likely it could be detected in the urine for several days or a week. In the case related, the urine of the third twenty-four hours was found by Dr. Hadley to contain arsenic. The liver is supposed by some to aid in excretion. A large quantity is almost always found in the liver, and this we should expect independent of any excretory function in the organ. The portal blood carries the arsenic to liver soon after its absorption, and therefore with the other organs having connection with the portal system it gets an early supply of the poison. Moreover, the peculiarities of the circulation in the liver, easily account for the large proportionate quantity arrested in it. In so far as the liver has an excretory function it probably is efficient in aiding elimination, but no farther. The urine is at first quite copious, but becomes scanty or suppressed sooner or later. If water could be ingested the urine would probably continue to be secreted freely—its scantiness can readily be accounted for from the want of water in the blood. Of course if water could be absorbed nothing could be more rational than to supply it freely for the purpose, among others, of freeing the blood of the poison by the kidneys. In chronic cases elimination by the kidneys is probably the principal method of relief. Therefore depurative diuretics are highly useful.

Treatment.—It is obvious that the aim of all treatment is to get the arsenic from the body. Nature sets to work her agencies very early, and vomiting is one of the first methods. The emetic operation of arsenic, especially when taken in solution is often remarkably rapid. One case is known to the writer, in which the arsenic was put in the tea, and several persons of the family were attacked with vomiting before the conclusion of the meal. Spontaneous vomiting as has been made clear often prevents all future danger. Vomiting then is the first method of removal. Nor should any attempt be made to restrain it at first, though probably not much could be affected by safe doses of opium. If the arsenic has been

taken in solution there is less benefit in prolonged vomiting, as far as removal from the stomach is concerned, because none is likely to remain in it, but if it has been taken in powder there is more need of it; for even after continued vomiting, after death it is found adherent to the lining membrane, especially if much has been taken. Vomiting then should be aided by liquids. As an antidote the hydrated sesquioxyde of iron may be employed. This should be given freely in large doses as often as every fifteen minutes. A large portion will be rejected almost as soon as taken, and therefore may be given for a considerable time. When we lay aside the idea of gastritis, or gastric irritation, and look upon vomiting as not only an effort to expel the contents of the stomach, but a means of elimination, we shall be less afraid of producing the morbid states which we have assumed to exist.

After vomiting has continued for some time and retching and distress become great, an attempt to relieve these by opiates seems very proper. To effect this the best method by which the action of opiates can be secured is by subcutaneous injection. It is evident none would be retained or absorbed by the stomach, and often the rectum has as little retentive or absorbing power. But the giving of opium may do harm as well as good. It will inevitably retard the process of elimination, especially by the kidneys, as well as relieve the distress. It should not therefore be given early unless the distress is great. It would be desirable to aid elimination by those agents which are thought to increase it, such for instance as iodide of potash, but as no medicine of this nature can be given on account of the vomiting, we are compelled to leave the process to the natural efforts. When vomiting ceases, and especially if there has not been much purging, a laxative is required. These measures are mainly to be kept in mind in those cases in which the quantity taken though large is not inevitably destructive. In many cases the amount absorbed is so great that no measures can afford the slightest hope of benefit, and death soon takes place. In others prompt and judicious treatment will save life.

Antidotes.—It is matter of doubt whether the action of iron is anything more than mechanical, and therefore like that of magnesia and other insoluble or slowly soluble powders, enveloping but

not chemically changing arsenic. It probably does more than play this negative part, by rendering the arsenic insoluble and precipitating it from its solution. This is the opinion of Dr. Hadley, whose authority is entitled to great weight. But whatever part it plays it can have no action on arsenic already absorbed. The only method of getting rid of that is by elimination. The hydrated sesquioxide of iron may be very readily prepared by adding water to the tincture of the muriate of iron and precipitating by ammonia. The precipitate is to be washed till it ceases to ammoniacal. It can be thrown upon a large cotton filter and the water squeezed out. When prepared the powder may be given mixed with water. This however is only one of the methods of obtaining, and is mentioned because the materials for its preparation are more likely to be at hand. Mialhe proposes the hydrated sulphuret of iron as of superior efficacy. There is probably no special advantage to be derived from its use, and it is best to content ourselves with the readily obtained hydrated sesquioxide.

Summary.

Summary of Foreign and Domestic Medical Journals.

PREPARED BY FRANK KING.

Dr. Gull, on the treatment of fever. (Braithwaite's Retrospect.) When the pulse in the early stage of fever, more particularly typhus and typhoid, is very frequent, the patient requires to be well supported, in order to carry him through the later stages of the disease. The rule laid down by Dr. Gull is, to keep the patient cool, sponge the skin three or four times a day, give him plenty of liquids to support the renal respiration; and plenty of fresh air to support the pulmonary respiration. The plan of giving enormous doses of stimulants is bad, if the patient is likely to die, no amount of whisky or brandy will save him, and the plan of giving him nourishment every half hour may be carried to an injurious extent, for it is very doubtful whether any of the nourishment given in severe cases is assimilated.

M. Decaisne, speaking of the effect of tobacco on the heart, (Braithwaite) says, it very frequently happens that inveterate smokers have an intermittent pulse, caused by an intermission of the action of the heart, and quite unexplainable by any organic lesion of that organ, which he terms "narcotism of the heart." The normal action of this organ will, in a large proportion of cases, be restored on the abandonment of the habit.

J. H. Bennet, M. D., on connection between phthisis and uterine disease. (Lancet, Sept. No.) The auther, who has had a large experience among consumptive women, states that the anæmia and debility caused by uterine diseases are, through their reaction on the digestive and nutritive functions, powerful predisposing causes to pulmonary consumption, especially where there pre-exists any constitutional tendency. It being a disease of defective vitality, any lesion which lowers the healthy tone of the system, such as uterine disease, leads to its development.

With the assistance of sunshine, a dry bracing atmosphere, a mild temperature, and rational sthenic treatment, hygienic, dietetic and medicinal, and the removal, if possible, of the uterine affection, Dr. Bennet has found consumption amicable to treatment. He also remarks that the treatment of chronic uterine inflammation is exceedingly tedious and harassing. The patient is below par, and for a long time does not respond to treatment. Yet it is necessary that the original disease should be treated and removed, if climate and treatment are to have a chance of success with the lungs.

Robert B. Carter, F. R. C. S., on the local application of hot and cold compresses in Ophthalmic Diseases. (London Ophthalmic Review, July No. 1865.) The application of moist, hot and cold compresses, simple or medicated, holds an important place in general surgery; and in ophthalmic surgery, such applications are of great value when discreetly used.

For cold compresses the best medium is linen, of suitable size, and from four to six layers thick, large enough to cover the orbit and immediate parts; it is necessary to provide at least three or four compresses for each eye, and to pay special attention to the following points, viz: that the compresses must not be too moist, and must be changed about every four minutes; they should be

made to adapt themselves, by pressure, to all the uneven surfaces they cover. Ice itself is too severe a measure, and is said to have been followed by cataract, and opacities of the cornea.

For the application of heat, the same general method must be perused with the addition of a thermometer in the basin, to maintain the prescribed degree of temperature.

As a prominent example of the good effect to be obtained from warmth, Von Gräfe has described a disease of the cornea, usually found in children, which he calls "passive purulent infiltration," which commences as a yellow dot, occupying the centre of the cornea, and increasing quickly in size, extending deeply into the corneal tissue, and more or less superficially ulcerated. The iris becomes swollen and colored of a yellowish or redish yellow tint, but exhibits none of the results of irits. In this disease he has found great benefit from the use of warm compresses, and the instillation of atropine.

In the "loss of corneal substance," chiefly found in town-bred infants, the application of heat is extremely valuable. In corneal infiltration, resulting either spontaneously, or after operations or injuries, marked by a moderate degree of sub-conjunctival injection, with acute pain, Von Gräfe has found hot compresses of from 80° to 100° Fahrenheit a very useful remedy, and also in some cases of distinctive corneal ulcers.

In many forms of chronic keratitis and conjunctivitis, in granular lids, opaque and vascular cornea, and in diffuse opacity of the cornea without visible vessels, it is well known that the occurrence of an acute healthy inflammation is often followed by great improvement; such inflammation may often be brought about by the diligent use of heat.

The application of cold compresses will be called for in cases the opposite of those already described; cases in which it is the object of the surgeon to prevent inflammation. The chief indication for the use of cold after injuries, either surgical or accidental, is furnished by a sensation of heat in the affected eye, or by an actual elevation of its temperature. In purulent ophthalmia, of any form, the application of ice water compresses is the most important means of treatment.

Cases may arise in which medicated compresses would be pre-

ferred to the simple, such as hot infusion of opium, but they may be melted with any liquid of the proper temperature.

Henry W. Williams, M. D., on near-sightedness a disease and not an infirmity. (Boston Med. and Surg. Journal.) In this article the author records two cases to illustrate that short-sightedness, or myopia, is a disease, and not an infirmity; and that it is a consequence of an abnormal form of the globe, consisting in an elongation of its antero-posterior diameter, especially in the region surrounding the entrance of the optic nerve, where a bulging outwards of the sclerotic, termed posterior staphyloma, takes place, thereby thinning and weakening the sclerotic and choroid. The retina thus distended has its perceptive power diminished, and as the disease progresses it becomes separated, and a serous infiltration takes place between it and the choroid. As the patient advances towards middle age, cloudy flakes appear in the vitreous humor, the crystaline lens becomes opaque, which increases till cataract is formed, the removal of which, for the restoration of sight is futile.

When by the aid of the ophthalmoscope, staphyloma is found to exist to any great extent, it is unsafe to allow any employment requiring constant application of the eyes, or a stooping posture. But if only slight straphyloma exists with a healthy condition of other parts of the retina, literary pursuits may be permitted, if care is taken that the eyes be relieved by frequent intervals of rest, and the head kept, as much as possible, erect. Glasses of suitable strength, to give vision, should be worn at all times when the eyes are not employed on small objects. By so doing the eyes are spared the necessity of making efforts to recognize things at a short distance.

A New Circulation.—Dr. Bence Jones, in a lecture recently delivered (says the *Boston Med. Jour.*) at the Royal Institution, says there are good grounds for believing that there exists within us, in addition to the mechanical or animal circulation of the blood, another and a greater and more strictly chemical circulation, closely resembling, if not identical with, that which obtains in the

lower divisions of animals, and in vegetables. A circulation in which substances continually pass from the outside of the body into the blood, and through the blood into the textures, and from the textures either into the ducts, by which they again pass into the blood, or are thrown out of the body; or into the absorbents, by which they are again taken back into the blood, again to pass from it into the textures.

Miscellaneous.

On the Antagonism of Atropia and Morphia, &c.

BY DRS. WEIR MITCHELL, KEEN AND MOREHOUSE.

The foregoing experiments and observations authorize us, we think, to draw the following conclusions as to the use of hypodermic injections, and as to the antagonism of atropia and morphia:

1. Conia, atropia, and daturia have no power to lessen pain when used subdermally.

2. Morphia thus used is of the utmost value to relieve pain, and is most potent, in certain forms of neuralgia, the nearer it is applied to the seat of the suffering.

3. Morphia lowers the pulse slightly or not at all; atropia usually lowers the pulse a few beats within ten minutes, and then raises it twenty to fifty beats within an hour. The pulse finally falls about the tenth hour below the normal number, and regains its healthy rate within twenty-four hours.

4. Morphia has no power to prevent atropia from thus influencing the pulse, so that, as regards the circulation, they do not counteract one another.

5. During the change of the pulse under atropia, the number of respirations is hardly altered at all.

6. As regards the eye, the two agents in question are mutually antagonistic, but atropia continues to act for a much longer time than morphia.

7. The cerebral symptoms caused by either drug are, to a great extent, capable of being overcome by the other, but owing to the different rates at which they move to affect the system, it is not easy to obtain a perfect balance of effects, and this is made the more difficult from the fact already mentioned, that atropia has the greater duration of toxic activity.

8. The dry mouth of atropia is not made less by the coincident or precedent use of morphia. Atropia does not constipate, and may even relax the bowels; morphia has a reverse tendency.

9. The nausea of morphia is not antagonized or prevented by atropia.

10. Both agents cause dysuria in certain cases, nor is the dysuria occasioned by the one agent relieved by the other.

11. Atropia has no ability to alter or lessen the energy with which morphia acts to diminish sensibility or relieve the pain of neuralgic disease.

12. As regards toxic effects upon the cerebral organs, the two agents are mutually antidotal, but this antagonism does not prevail throughout the whole range of their influence, so that, in some respects, they do not counteract one another, while as concerns one organ, the bladder, both seem to affect it in a similar way.—*Amer. Jour. of Med. Sciences*, July, 1865.

A Summary of the Proper Diet in Diabetes.

BY DR. EDWARD SMITH, F. R. S.

1. *Fluids.*—To be limited by degrees daily until they shall not exceed five pounds and a half in both fluid and solid food. Of this quantity two to three pints should consist of new or skimmed milk, and one pint, or less, of tea. In the cold season and at night they should always be given when hot. Of all alcohols brandy is the best, and may be given with water only, or added to milk, or beat up with egg and milk, and given several times daily. No fluid should be given in greater quantity than half a pint at a time, and when milk is reduced in volume by cooking, the daily quantity of fluid must be made up by an additional supply of the same or other fluid.

2. *Solids.*—Dr. Prout's combination of eggs and milk (with sharps substituted for bran) is excellent. Four ounces of sharps and four ounces of peas, beans, or lentils, may be made into bread or pudding, with milk, or into omelettes, with eggs and herbs. Eggs and gelatin may be given when starchy food cannot be altogether intermitted. Eggs, gelatin, cheese, gluten bread, meat, fat, and oils may be given as largely as they can be digested. The free use of salad oil should be urged, whether in the cooking of fish or flesh, or in the use of water-cress as a salad, or drank alone, so that several ounces may, if possible, be consumed daily; but as there are in all persons preferences and dislikes in reference to particular fats, that kind—whether butter, suet, oil, or fat of meat—should be allowed which is the most agreeable. Four oz. of sharps, 3 oz. of wheaten flour, 5 oz. of peas, 1 lb. of meat, 2 oz. of cheese, 2 pints of milk, and 3 eggs, will afford more than about 13 oz. of carbon and 1 oz. of nitrogen daily.—*Braithwaite's Retrospect.*

Death from Purulent Infection.—The French journals, says the *Brit. Med. Journal*, announce the death of M. Bauchet, surgeon, of St. Antoine, from a poisoned wound of a finger resulting from dressing a purulent sore of a patient. A writer in *L'Union Medicale* says:

"If he had performed his hospital dressing with chloride of sodium, permanganate of potass, or alcohol, we should probably not have to deplore the death of this young and deserving *confrere*. In 1831, I punctured my finger while dissecting. Notwithstanding caustic and fomentations, I had, two days afterward, shiverings, headache, nausea—all the signs of purulent infection. I went to Breschet for advice; and he said, 'Go at once to the Café Procope, order half a bowl of punch, drink it burning hot, and run home to bed.' I followed the prescription to the letter, and was in fact, helped home by two friends. It was the only time in my life I ever got tipsy. I slept fifteen hours, and during the whole time sweated profusely. On the following day, all the symptoms of septicæmia, as M. Piorry would say, had disappeared."—*Med. and Surg. Reporter.*

Editorial Department.

Increase and Prevalence of Typhoid Fever in Western New York.

Some of the younger members of the profession may not be aware of the fact, that the Typhoid Fever, which is now so widely prevalent, is comparatively a new disease in Western New York; though it has been observed and recognized in rare instances ever since about the time when Louis ascertained that the fevers of Paris were related to each other by lesions of the glands of Peyer, and by a softened condition of the spleen. He first applied the term *typhoid* to distinguish a febrile disease which he had demonstrated as dependent upon this local lesion. After the publication of the researches made in France, the physicians of other countries became interested to determine how far the same form of fever prevailed elsewhere. In England it was soon found that in some cases of their so-called typhus fever, the descriptions of Louis were applicable, while in others they were not. In our own country—in New England, the indiginous or autumnal fever, was found to present symptoms and lesions entirely similar to those observed in France.

Physicians in Philadelphia observed a fever which was endemic in that vicinity, identical with the typhoid of Louis. From this beginning typhoid fever commenced to be recognized as a distinct disease, though not accepted by many pathologists as such. The British physicians more generally regarded it as a modification of continued fever, which might be divided into typhus and typhoid; while almost everywhere was acknowledged the fact that a wide distinction in these two forms of disease did actually exist.

In this vicinity the prevailing type of fever was the common remittent, which was at that time often called "bilious fever," though the editor of the Buffalo Medical Journal, Prof. Austin Flint, says, "there is reason to suppose that sporadic cases of typhoid fever occasionally occur, and we are liable at any time to meet with this, or undoubted typhus in an epidemic form." On account of this liability he published the "characters distinguishing remittent and typhoid fever."

From this and other data, we infer that typhoid fever, as such, was not a disease of Western New York, and except in rare instances had not been observed previous to 1846. Dr. G. N. Burwell in a communication to the Buffalo Medical Journal dated November 12, 1845, says, "I saw a woman on Grand Island in December last whom I considered as having typhoid fever. In June I went to Hamburgh to see a woman who undoubtedly had this fever; and in April last my father went to the same town to see a case of this disease."

Twenty years ago the autumnal fevers of New England were as truly typhoid as they are to-day, while in Buffalo the disease was of rare occurrence, and perhaps not in an unmixed form in any instance, being changed by the malarious influence which was modifying almost all forms of disease.

Gradually typhoid fever has been increasing in frequency until it is now the prevailing type of fever, while remittent fever and other forms of malarious disease have been gradually growing less frequent, and in many parts have entirely disappeared.

It would be interesting to follow inquiry into the causes of this increase in the frequency of typhoid disease, and disappearance of the former characteristic type of fever. Perhaps explanation might be readily offered of the disappearance of malarious disease, while greater difficulty would be met in accounting for the great increase in the frequency of typhoid fever. It should be remarked that in the hill towns of Erie County malarious disease was never frequent. Dr. Emmons, one of the oldest and most experienced physicians in Western New York informs us that, intermittent fever was never generated in Springville, that formerly, all disease was inflammatory in character, and all inflammations of the active type.

Typhoid fever is becoming the fever of the country, and is now occurring more frequently than ever before; in Buffalo certainly it is prevailing very extensively, and we believe it has gradually gained in frequency since its first appearance.

A proper understanding of its natural history and pathology will naturally lead to very correct modes of treatment, though it must be confessed that all plans of medication have been proposed and adopted, some cases recovering, even under the most ill

directed efforts. Great uniformity now prevails in the treatment of this disease, and we have nothing to suggest which will add to the generally accepted doctrines concerning it. We have recently visited day after day and carefully watched the progress of the disease without prescribing any medicine at all, and the cases terminated early and satisfactorily. The severe symptoms which are usually present, can be more or less relieved by judicious medication, always keeping in view, that if we cannot do any good, we can at least, avoid doing harm. There is one point in the treatment of typhoid fever, to which it might be well to direct attention. Does the malarious influence which pervades this vicinity to greater or less extent, so modify or complicate all disease, typhoid fever included, that the specific or anti-periodic properties of bark are useful in its treatment? Will quinine relieve any remittent symptoms, abate complications, or in any other way favorably influence the termination of typhoid fever?

Books Reviewed.

Essentials of Materia Medica and Therapeutics. By Alfred Baring Garrod, M. D., F. R. S., etc New York: William Wood & Co., 1865.

The introductory chapter explains the meaning of the groups into which medicines are divided. The work proper begins with inorganic substances, and gives an accurate and detailed account of the natural history, physical and chemical properties, officinal preparation, therapeutical application and dose, with the adulterations to which they are frequently subjected.

The organic substances are treated of fully and concisely, stating when vegetables, roots, barks, flowers and fruits, intended for medical preparation should be gathered and how preserved. The last chapter is upon Test Solutions for quantitative and qualitative analyses of substances contained in the pharmacopœia, with an explanation of their more important applications. It will thus be observed that the book comprises a complete work upon materia medica. "*Essentials*" might very properly have been omitted in the title, thus not misleading into the idea that we were to have a work exclusively upon the truly essential articles of the materia medica.

No one will at present attempt to write a book upon the really valuable and thoroughly tested articles of medicine, since, in the first place they are too few in number; in the second there is too great discrepancy in opinion as to which are truly essential; and finally, if the best man in the world should write a book upon this subject, confining himself to what he knew of the action and value of medicine, he would not be tolorated at all; it would make too small a book, and would generally be regarded as containing nothing. In order to make a book upon materia medica, everybody's opinions must be published upon the action of all known substan-

ces, and their supposed influence upon disease. The book before us has many excellencies, and no faults which have led us into the above remarks, but we have often wished that we could really find a work upon the essentials of materia medica. We venture the opinion that no author has ever published any work, which in his own estimation merited such a name; the *un*-essentials of materia medica would be a very truthful and appropriate name for all these works, but they have only erred in leaving off the *un* in the title page, it is sufficiently obvious throughout the body of all our works upon the articles of medicine. The work by Garrod stands high in value as a scientific and complete work, It is perhaps unsurpassed in excellence; its title only afforded us a text for expressing a long cherished and carefully considered opinion, that a great majority of our medicinal substances, so-called, are the *un*essentials of materia medica.

Ovarian Tumor.

George T. Elliot, M. D., Professor in Bellevue Hospital Medical College communicates to the New York Medical Journal, the report of an operation for removal of an oxogenous ovarian tumor, weighing seven pounds, with fatal results. The operation, circumstances, attendants, time, symptoms, treatment, and everything connected with it, is reported with the most painful exactness; there is but one single omission to be conceived; he says, "the first incision was made at 2.16 P. M. with a broad scalpel." The size of the scalpel with which he operated is given, but the name of the manufacturer is omitted. Dr. Elliot makes some very pertinent remarks upon the importance of the operation, the value of reporting fatal cases and the great impropriety of operating under unfavorable circumstances. The report is instructive, but throughout the whole report we have never met with a minuteness of detail so remarkable.

Transactions of American Medical Association.

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WM. B. ATKINSON,
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BUFFALO
Medical and Surgical Journal.

VOL. V. OCTOBER, 1865. No. 3.

ART. I—*Transactions of the Medical Society of the County of Kings.*

REGULAR MEETING, APRIL, 1865.

Otitis, Perforating of the Mastoid Process with a Trephine.

REPORTED BY DR. J. C. HUTCHISON.

Henry Steele, a seaman, 23 years of age, entered the Brooklyn City Hospital May 31st, 1859. Four weeks previously he had an abscess behind the ear which was opened, discharged pus freely and then healed. This was followed by a purulent discharge from the ear, for which he entered the hospital. He had no pain after coming into the house until June 13th, when he was attacked with intense ear-ache and tenderness on pressure over the mastoid process. The pain was excruciating, and was not at all relieved by the abundant use of anodynes internally, anodyne fomentations, counter irritants, etc. On the 15th I found him still suffering intensely, and suspecting that the pain arose either from an abscess in the mastoid cells, an accumulation of pus in the cavity of the tympanum, or from inflammatory swelling of the mucous membrane which lines the cavity of the tympanum and mastoid cells, I at once determined to perforate the latter with a trephine.

After exposing the outer surface of the mastoid process by a crucial incision, the crown of the trephine was applied to the bone, inclining it forward and upward in proportion as it penetrated until the auditory cells were reached. No pus was found, nor was the process diseased. A probe introduced into the wound passed without obstruction from the mastoid cells into the cavity of the tympanum. The wound was closed with silver sutures, and water dressing applied.

The operation gave entire relief at once; he ate and slept well, and indeed suffered no farther inconvenience, except a slight discharge from the ear. The wound healed kindly by granulation, and he left the hospital July 20th.

The prompt relief afforded in this case was owing no doubt to the removal of the tension caused by the swelling of the membrane which lines the unyielding bony walls of the tympanum and mastoid cells.

Epithelial Cancer of the Glans Penis.

Dr. Hutchison also presented a specimen of *Epithelial Cancer of the Glans Penis* with the following history: Charles Dozle, Ireland, age 60, presented himself for treatment in October, 1864, complaining of pain about the glans penis, scrotum and perineum. He had congenital phymosis, but an enlargment could be felt through the foreskin on the under part of the glans penis which was sensitive to the touch. His general health had suffered somewhat on account of the pain which was so severe at night as to prevent sleep. I advised slitting up the prepuce for the purpose of examining the tumor more satisfactorily. He would not consent to the operation and subsequently consulted Dr. Mott and one or two other eminent surgeons without being benefitted. He applied to me again early in March and consented to have any treatment adopted that I deemed proper. I exposed the glans by dividing the prepuce and found an elevated graunlar surface on the left side of the glans, which presented the appearance of epithelial cancer, bleeding readily when touched.

I advised removal of the organ, which was done with a scalpel, a short distance behind the glans. Four arteries were tied and the mucus membrane of the urethra was divided by the knife into four equal parts which were tacked to the edges of the cutaneous portion of the wound. The object of this procedure was to prevent contraction of the orifice of the canal which is so liable to follow the ordinary operation.

On the following day he said that he had slept better the previous night than for a number of months. With the exception of retention of urine after the third day, which necessitated the introduction of a catheter into the bladder several times, no untoward symptom followed the operation, and he now feels quite well.

The diseased portion has lost its color and is also diminished in size by the alcohol in which it has been preserved. The specimen was examined under the microscope by Dr. Spier, and was found to be epithelioma.

REGULAR MEETING, MAY, 1865.

Report of a Case of Hydrophobia.

BY R. C. STILES, M. D.

John McE., aged 23, a native of Baltimore, a currier by trade, well built, and of temperate habits, was brought to the hospital about noon on Friday, May 5th. From his own statement and that of his friends, the following history was obtained:—

He had been bitten by a dog on the Monday morning previous. The dog was morose, disposed to be let alone and snapped at those who disturbed him, but was not supposed to be mad. He was killed four days afterwards. The patient was bitten on the back of the hand; the wound was very slight. On Monday night he felt slight pain in the hand but slept well. The following morning the pain had extended to his arm and shoulder and he could not drink his tea—attempted to take it through a tobacco pipe, but could not swallow it. He ate however a crust of bread; but neither ate nor drank again till he entered the hospital. On Wednesday night he had pain in his chest with difficulty of breathing, was raving and furious so that it took several persons to keep him in bed. He was seen by a physician on Wednesday evening who pronounced the case one of hydrophobia. A physician from New York saw him on Thursday afternoon, and pronounced the case one of hydrophobia; ordered an injection.

Symptoms while in the hospital.—The *pulse* on admission was 160 per minute, became more frequent and after four hours was imperceptible.

The *blood* examined under the microscope presented an increased proportion of white corpuscles, about one of the white to twenty of the red.

The *lungs* on auscultation were found sound, but almost every

inspiration was interrupted by a spasmodic closure of the glottis producing a sobbing respiration which continued till death.

The *skin* was covered with a cold sweat. The temperature in the axilla an hour after admission was 92° Fahr. The heat of the body rose with the application of warmth to the lower extremities, which were quite cold at first. The tongue was furred; he was constantly spitting a clear liquid; on taking some toast soaked in wine and sugar he vomited and continued to vomit whatever he took till an hour before death. He used a gutta percha tube to draw some tea into his throat to quench his thirst, but he vomited it continually. He stated that he had passed his urine and fæces involuntarily since Tuesday. There was a slight involuntary discharge of urine while he was in the hospital. The most interesting phenomena, however, were those presented by the nervous system.

Sensation was affected in the right arm, (the one bitten,) which felt numb, and did not recognize painful impressions as readily as the other. There was no tenderness on percussion or pressure over the spine; no tenderness over the abdomen except in the loins, which I attributed to the soreness from previous convulsions. The spinal senses were very acute long after the pulse ceased to be felt. The eyes were red and protruding. He said he felt them protrude. The sound of running water distressed him, and caused a shiver to pass through his frame. Draughts of air or the lighting of flies on the face produced a similar effect, but he complained that he could not breathe under a musquetoe-net. There were constant twitchings of the muscles of the face, these moving the alo nasi, and the lips in particular. His right hand was paralyzed; when he moved in bed he moved the right arm by the aid of the left. All his movements were sudden, even turning in bed.

His *intellect* was clear, and he answered questions with remarkable precision till ten minutes before his death. He raved, however, for about an hour before death. He had the fearfulness of delirium tremens. When water was mentioned he repelled it with an intense expression of terror. He dreaded the approach of night for he said he then saw ugly sights. Long after the pulse had entirely failed he leaped from the bed and fell on the floor, excited by a light having been brought near him.

Death at 11 P. M., in an attack of vomiting—*Post-mortem* 11 hours after death. *Rigor mortis* extreme, particularly of the bitten arm.

External appearance.—Diffused purple discoloration of posterior surface of trunk and limbs; eyes staring; scar of bite almost imperceptible. *Brain* normal. *Spinal cord* and its meninges deeply congested—possibly from subsidence of the blood. *Heart* unusually rigid. *Lungs*—Liver and spleen normal. *Kidneys* somewhat congested. *Bladder* empty. *Intestines* deeply congested. *Pharynx* and upper portion of æsophagus slightly congested. *Stomach* contracted. *Blood*, fluid.

This case was a type case of hydrophobia not to be confounded with delirium tremens, tetanus, or other nervous disorder; commencing within twenty-four hours after the bite of a rabid dog. Death occurred through failure of the heart's activity, and the symptoms pointed to the upper portion of the spinal cord as the seat of lesion of the central nervous system. No treatment whatever was employed except the applications of heat to the lower extremities.

ART. II.—*Two Cases of Vesico-Vaginal Fistula.* By S. BARRETT, M. D., *Le Roy.*

Mrs. H. came under my care in February, 1864. Her history of her case was as follows: In November preceding her admission into my Infirmary she was confined of prima-para; it was a pelvic presentation: the labor was protracted and tedious. After the body of the child was expelled, the head was retained for eight or nine hours before her attending physician succeeded in delivering her. She made a tolerably good recovery. About two weeks after her confinement while sitting at the dinner table she felt a sudden gush of urine, and was unable to retain it after that. She was treated for paralysis of the bladder more or less of the time until she came under my care. On examination I found a fistulous opening about 2½ inches from the orifice of the urethra of sufficient size to admit the end of the fore-finger. Regarding this operation as every other in surgery, the best, when the least complicated means are used, I proceeded to close the fistula after making

effort to denude the edges of all hardened tissue, with five silver sutures, and twisted the ends over the wound, with the precise degree of tension to the sutures, subsequent experience has taught me, is the great desideratum to success in these cases. A siphon catheter was introduced in this case, which I now regard as unnecessary, except in cases where the natural caliber of the urethra has been lessened or closed.

Two of the sutures ulcerated out in about six days, leaving a fistula about one-fourth as large as at first. A second operation was performed in April following. One suture cut its way out in about the same time, leaving a small pin-hole through which the urine dribbled. The third operation I performed last March, closing it entirely. After the two last operations no catheter was introduced at all, and the patient was allowed to move about without restraint.

Mrs. V. N., aged 44, of Dutchess county, came under my care the first of September last. She had been three times pregnant; the last time fourteen years since. At her last confinement craniotomy was performed; after which she was unable to retain her urine. Having been reduced so low at the time her case was regarded and treated as one of paralysis of the bladder up to the time of her admission here. An examination revealed a fistula commencing three inches posterior to the orifice of the urethra, and extending back to within one inch of the os-uteri, sufficient to admit the finger freely into the bladder. The surrounding tissues were very much thickened and hardened. The urethra was closed by the thickened tissues about one inch from its orifice, and would not admit a small sized probe. After considerable careful manipulation I succeeded in passing a small sized dilator, using a larger size daily; in about a week it was sufficiently enlarged to admit a common sized catheter. I then proceeded to close the fistula as in the other case. The sutures were inserted a half inch at least from the edge of the cut surface and down to the muscular fibres of the bladder. A catheter was introduced and retained four days, after which the urethra remained sufficiently pervious for the urine to pass, it was removed, and the woman allowed to sit up. The sutures were retained three weeks, during which time I applied daily a solut. of nit. argent gr. xx, aqua ʒi to the sur-

face where the sutures emerged, and to the edges of the wound. The sutures merely cut through the mucous membrane, which is the exact degree of tension I regard as essential to success in these cases. At the writing of this, October 16th, the parts seem firmly united. She can retain her urine three hours—the first time in fourteen years. She has been able to pass one-half hour without discomfort from urine constantly passing. She to-day leaves for her present home in Rochester.

ART. III. —*Orthopædic Surgery—Remarks upon "Talipes."* By J. F. MINER, M. D.

Orthopædic Surgery is so little the common property of the profession, and so generally considered as belonging exclusively to those who cultivate this department as a specialty, that any attempt to make it general and popular will doubtless at present end in failure. The obstacles to be overcome in the treatment of deformities are numerous, and very formidable, arising both from the nature of the disease and from conditions not strictly or essentially connected with the disease itself. The leading minds in the profession who have bestowed attention upon this branch of surgical practice, have done so with the view that orthopædic institutions must be established in this country upon a basis similar to those in Europe, that "the principles of this inestimable science may be diffused far and wide," and have always seemed to direct their thoughts and efforts mainly to the erection of some great charity where this class of disease might receive exclusive attention.

That such an institution would afford advantages over private residences in the treatment of deformities, is sufficiently obvious, but that the principles of this inestimable science may not be diffused, and become the common property of the profession is by no means conceded. The surgeon in general practice cannot devote great attention to determining the obscure causes of muscular contraction, or why it should continue after causes producing it have been removed; the laws of reflex action may not be fully familiar to all the practitions of orthopædic surgery, if indeed the details of this action are even understood by any, but the general principles of this science so far as relief is concerned may be readily gained by every attentive practitioner of medicine; what is

really known, even by those who have devoted to this subject great time and much patient labor, may be appropriated in its practical bearings, and in great degree made available in the general practice of medicine and surgery. These remarks are made as prefatory to what may be said upon the nature and treatment of deformities of the foot rather as encouragement to general practitioners to attempt restoration, and not to allow the generally received opinions that private treatment is inefficient and unsuccessful, to dissuade from well directed effort in the treatment of congenital or acquired deformities. An institution for the exclusive treatment of such disease might be a great charity, but a much greater and more wide-spread charity would be instituted, by practical knowledge of the principles of treatment, being made the common possession of the masses of the profession. That which has been neglected by the profession, has been seized by a herd of pretenders and quacks who claim as their divine gift, what medical art has failed to achieve. The sufferers, who gather around them by hundreds, are fleeced, duped, and deceived, and ignorantly suppose that their failure to obtain relief is due to impossibility of cure, rather than to the dishonesty and incapacity of the arrogant pretender they have consulted. There is no corner of the domain of medicine unentered by these pretentious villains, who are inexhaustible in their promises and efforts to delude the ignorant and credulous. Physicians should not avoid and neglect patients having deformity though they have passed the usual routine of quackish divination, and apply for relief after "laying on of hands, natural bone setting, angle-worm oil, magnetic baths, galvanic salve," and a host of other absurdities have failed to relieve a condition of disease, which is safely and certainly curable when given up to judicious and enlightened effort.

"*Talipes*" has been introduced as a generic term to all the distortions of the foot, with or without displacement of the articular surfaces of the tarsal bones; different mal-positions of the foot have received descriptive appellations. The foot is frequently the seat of mal-position, which is often congenital; the larger number however are said to be acquired. Some forms are almost always congenital, as club-foot for instance, while others rarely.

The causes of the various mal-positions of the foot cannot be

briefly stated, if they could be positively determined at all; the causes of congenital deformity are unknown, though it may be said that many of the most stubborn facts favor the old and popular notion that impressions made upon the mind of the mother, may affect the fœtus in utero, which view has been recently discarded, and even ridiculed by "theoretical physiology." Acquired deformity may arise from various causes, but is produced generally by permanent contraction of muscles, which are of course obedient to the nervous system, reflecting changes which may have taken place in this system, or which have been communicated to it by reflex influence. Disease of the joints is a frequent cause of deformity, both from displacements and from contraction of muscles. Contraction of muscles is the almost uniform condition in cases of mal-position, the bones acting in obedience to the forces which are applied to them. Upon this fact rests many of the therapeutical and mechanical indications which are present in cases of deformity—the muscles are drawing or have drawn the bones from their natural positions, and to this fact whatever may have been the exciting or remote causes we are to direct attention.

In some cases the muscles are found to not only have displaced the bones, but to have become fixed themselves, and incapable of contraction or extension; this fact is of great importance in its relations to treatment. Upon what this fixed condition of the muscular fibre depends is not so obvious, but probably upon perverted nervous influence or changes in the muscular fibre itself, or both these causes combined; however this may be the fact remains, and the indications of treatment are based upon it. In recent cases this is not present, and extension may be resorted to with some confidence of success, while those of long standing should not be subjected to this torture, since it will certainly end in failure, and may even aggravate and complicate the disease.

Are the deformities of the foot capable of restoration, and if so, by what means? are questions which practical men ask, and desire answers in as direct manner as is consistent with a correct understanding of the reply. If a child is born with feet distorted it can be restored in great degree; it *can* be perfectly or almost perfectly restored, but with the usual attendance which parents bestow themselves or hire others to do for them, it rarely, if ever *is*, per-

fectly restored. The grounds of this failure are sufficiently obvious, and rest with the patient and friends; for the best surgeon without co-operation can rarely accomplish satisfactory results, unless assisted by the most energetic and hearty approval on the part of attendants and friends. In many cases partially turned feet can be replaced when the child is young—the younger the better—and made to grow into natural form; this can be done without division of tendons if the effort is made with determination, and the retentive appliances efficient. Great deformity will require division of all of the tendons of contracted muscles, and failure is often from neglect of this; the tendo achillis being accused of all trouble, when in reality other muscles are equally in fault.

Restoration of deformed feet then, require, if recent, to be replaced forcibly in right position and retained; when distortion is slight, this may often be effected without division of tendons. If the deformity is great, the contracted tendons should all be divided, and foot placed immediately in proper position; delaying to dress, for a few days after division of the tendons, is believed to be wholly unnecessary. Inflammation to any troublesome or dangerous extent is exceedingly rare, and never greater by immediately placing the foot where it is to be retained. Fears are entertained by patients and sometimes by physicians, that tendons divided will not unite, and that thus will be produced permanent weakness. Upon this point of union there need be no fears, they will invariably unite and become strong; the weakness which is apt to be present in such cases, is due wholly to other and often to obvious causes—atrophy of muscles, perverted nervous influence, disuse and other influences in no way connected with the division of tendons. Division of greatly contracted tendons is indispensable to perfect success in the treatment of club-foot, and without this, the great majority of these deformities will remain unimproved, whatever other treatment may be adopted.

What retentive apparatus is best suited to our purposes in the treatment of deformities of the foot? Upon this point there will be found diversity of opinion; one, using some instrument, and another applying some form of retentive dressing—club-foot boots, of various patterns, paste-board, sole-leather, starch bandage, India-rubber, plaster paris, adhesive plaster, etc., etc., constitut-

ing the staples from which surgeons have selected to suit themselves. Adhesive plaster is well suited to answer the indications, and may be so applied as to fulfill all the objects desired in retention of feet which have been badly turned. The objections to its use are, mainly, that it requires too much time and attention of the surgeon; but this objection holds almost equally with all efficient means. Whoever trusts in the first of the treatment, to shoes made for the purpose, or other instrument to be applied by others than himself, will almost certainly fail of accomplishing the results he expects—will be disappointed in his just expectations. Sole leather may be easily converted into most admirable splints, and perhaps is unsurpassed for many purposes as a retentive material; the manner of preparing it, is doubtless familiar to all. Plaster paris has been highly recommended; as a material for stiffening bandages it may have some advantages over starch, and be made useful in the absence of more pleasant dressings.

Instruments fitting to properly made boots are convenient in the later months of treatment, but at first are more often injurious than otherwise. In conclusion it should be remarked, that success depends upon conditions and influences which the surgeon cannot always control; determination and perseverance are, however, essential, for the best of results can never be obtained without a rigid and protracted retention of the foot in natural form; it should be retained until it has time to grow into such position.

ART. IV.—*Abstract of Proceedings of Buffalo Medical Association.*

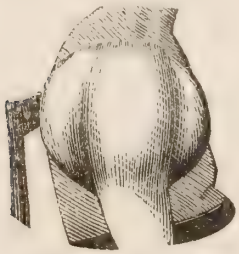
TUESDAY EVENING, September 5, 1865.

The Association met pursuant to adjournment, the President, Dr. Ring, in the chair. Present, Drs. Miner, Hauenstein, Strong, Samo, Brown, Johnson, Peters, and Gleason, members, and Dr. H. P. Babcock, U. S. N., as a guest. The minutes of the last meeting were read and approved.

DR. MINER presented a specimen of bony tumor which he had that morning removed from the vicinity of the shoulder-joint, hoping that its presentation before the Society would add somewhat to the interest of the proceedings. Possibly the growth of such tumors was not as rare as he supposed, but certainly it was sufficiently uncommon to make the specimen of interest, if not of rare curiosity.

About two years since he had made exsection of the head of the humerus of a patient aged 48 years, carpenter by trade, who had suffered from immense enlargement of the shoulder-joint, which was found to be caused by some disease of the bones composing the joint. After this operation the patient had fully recovered the use of the arm and had worked with acceptable ability at his trade of house carpenter. Within the last few months, the shoulder had again commenced to enlarge, and great accumulations of feebly organized fibrin mixed with serum, had formed round the joint, and within the mass could be detected hard, slightly movable tumors. Upon opening down upon them they were found to be growths of bone which had formed between the glenoid cavity and the exsected end of the humerus. There were six or eight in number, their size varying from a quarter of an inch to an inch and a half in diameter. The bone structure proper was enveloped in a cartilaginous covering which appeared as if it was itself being transposed into bone—was the first material deposited out of which the bone was later formed. These tumors were unattached to other bones, were independent bony growths.—There was not great pain, but the strength of the arm was lost and the disability from this cause and the great size it had attained was complete.

The case has before been reported, soon after the exsection was made, and the following cuts were used to show the appearances both before the exsection and a few months later. They are again inserted as giving a better idea of the appearance than can be done by words.



Outline of Shoulder before first operation

Appearance of Shoulder a few months after exsection. The patient then engaged in labor with the motions of the joint nearly normal. Works at his trade as a carpenter.

Dr. Gleason presented the following account of the poisoning of Mrs. Crocker:

I was called to see Mrs. C. on the 16th of August; found upon my arrival that Dr. Tobey had also been called, and arriving before I did, had prescribed. I was requested to see the patient, which I did; found her suffering greatly; extremeties cold; pulse small and rapid; head hot; countenance expressing great anxiety; abdomen tender on pressure; complained of great pain in the back and stomach; very thirsty; very restless, with frequent and violent vomiting. I advised Mr. C. to send immediately for Dr. Rochester, as he had usually employed him in the absence of Dr. Eastman, his family physician.

I was invited by Mr. C. to partake of a lunch with himself and daughter. It being past my dinner hour, I accepted the invitation, eating a little lamb chop, a cracker, and drinking a cup and a half of coffee. In about ten minutes after eating, I began to feel nauseated; started immediately for my office, promising, at the request of Mr. C. to call and notify Dr. Rochester that he was wanted immediately. Before reaching Dr. R.'s office I was taken with violent vomiting. This occurred about half an hour after eating. I was informed, late in the afternoon, that Dr. R. had not gone, and could not go, and according to the request of Mr. C., in case Dr. R. could not come, I returned, taking with me the hydrated sesqui-oxide of iron, as an antidote for arsenic, which I was sure had been taken by the patient, as well as myself, which I administered in large doses. Mr. C. informed me that he and his daughter had been vomiting violently in the afternoon. Gave him a dose of iron. Found Mrs. C. still very restless, tossing about in bed, with pain in the stomach, back and head; pulse imperceptible at the wrist; hands and arms cold; lower extremities warm, from the application of external heat; great thirst and great anxiety; had occasional sinking spells. Patient died about 12 o'clock of the same night. At the request of the friends a *post mortem* examination was held, which revealed slight *rigor mortis*. Upon opening the chest the lungs were found in a perfectly healthy condition. There was a little more than the usual amount of pericardial fluid. Upon opening the abdomen the stomach was found to be inordiately distended with fluid, and upon attempting its removal, al-

though no force was used, the duodenum was ruptured. A ligature was immediately applied; the stomach was also ruptured slightly, to which a ligature was also applied, and its contents preserved. A portion of the ilium, spleen, liver, pancreas and duodenum were removed and delivered to Prof. Hadley for examination.

Prof. H. informs me that he has as yet found no arsenic in the contents of the stomach, but has found it in the blood from the liver. The mesenteric glands were enlarged. Upon opening the stomach there was found a great quantity of brownish fluid. The mucus coat was slightly injected, softened and puffy with slight abrasions.

Dr. Peters gave an account of a post-mortem in a case of stone, of which he promised a more extended account when he could hear from the attending physician.

Dr. Strong wished to relate an extraordinary case of tolerance of opium in a child. Was called in July to see a child fourteen months old that was suffering from diarrhœa. The little one had always been of a fretful disposition, and had been largely dosed with opiate cordials. He soon found that ordinary doses of opium exercised no control over the disease, or the accompanying pain, and was obliged to increase the dose of laudanum to 10 or 11 drops, before any effect was produced, and even then no sleep was induced. The disease was somewhat controlled, but a relapse followed with choleric discharges, and he had finally to give 20 drops of laudanum every four hours. With this treatment the child got better, and he discontinued attendance.

About the middle of August the child was taken sick again with the same disease, and he found that opiates having been given freely, *ad interim*, he had to increase the dose to 25 drops, and finally to half a teaspoonful of laudanum. He tried an injection of half a teaspoonful of laudanum with starch, but it was not retained, and he finally gave in an enæma three-fourths of a grain of morphia, which controlled the discharges. In all this time there was very little hypnotic effect produced, the child sleeping but little, the pupils very slightly contracted, and little or no effect produced on the brain. Digestion was not at all impaired by the opium. Believed the child to be laboring under mesenteric disease, and to that and the habit of giving cordials alluded to, the extraordinary tolerance of opium was undoubtedly due.

Dr. Ring thought a great impetus had been given to the use of opium by certain distinguished physicians, and he feared with ill effect. Thought its prolonged use likely to produce effusion of the brain.

Dr. Samo was led by experience to differ from some of the gentlemen in regard to the use of opium. He used it a great deal, especially with children, and had never had any occasion to regret it. Uses chiefly Dovers powder or paregoric. Has treated many cases of dysentery with Dovers powders alone. Did not believe in the necessity of calomel in bowel complaints. Spoke also of the extreme prevalence of the habit of opium-eating, and thought its sale should be better regulated by law.

Dr. Babcock asked Dr. Samo if he had ever tried ipecac in the treatment of dysentery, and bore testimony to its value.

Diarrhœa, dysentery, cholera morbus, hooping cough, and typhoid fever were reported as prevailing, and the Association adjourned.

Joseph A. Peters, Sec'y.

Summary.

Summary of Foreign and Domestic Medical Journals.

PREPARED BY CHARLES NICHELL.

J. L. Clarke, F. R. S., on the Pathology of Tetanus, *(London Lancet,)* describes the condition of the spinal cord, in six cases of tetanus. In every one of these there was not only more or less congestion of the blood-vessels, but there were also definite and frequently extensive lesions of structure, such as has never yet been discovered. These lesions consisted of disintegrations of tissue in different stages of progress, from a state of mere softening to that of perfect fluidity, and were accompanied by certain exudations and extensive effusions of blood. They were found chiefly in the grey substance, which, moreover, was in many cases strangely altered in shape—unsymmetrical on the opposite sides, or partially fused with the adjacent white column in a common softened mass. Although lesions of this kind existed in one form or other, in every

region of the cord, they were absent in some places, nor did they ever, for a long time together, maintain the same shape, size or appearance, but were constantly and alternately increasing, diminishing or disappearing, at short but variable intervals.

These lesions in tetanus are precisely similar in character to those which the author has discovered in the spinal cords of many ordinary cases of paralysis; and on comparing together the lesions and symptoms of both kinds of diseases, he finds good ground for the support of the following conclusions:

1st—That the lesions are not present, or are present only in a slight degree, in those cases of tetanus which recover.

2d—That they are not the *effects* of the *great functional activity of the cord*, manifested in the violent spasms, but are the effects of a morbid state of the blood-vessels.

3d—That they are not alone the *causes* of the tetanic spasms.

4th—That the tetanic spasms depend on *two separate causes*—firstly, on a *morbidly excitable condition of the grey substance of the cord*, induced by the hyperæmic and morbid state of the blood-vessels, propagated from the injured nerves, and resulting in exudations and disintegrations of tissue; and secondly on *irritation* propagated and spread through the morbidly excitable cord from the same source—from the periphery, by the diseased nerves.

E. H. Greenhow, M. D., in his clinical lectures on diphtheria, (*Medical News and Library*), says that there are two principal varieties of this formidable complaint—namely, that form in which the urgency of the case is due to the local manifestations of the disease, and that other form in which the danger arises from the general constitutional affection. The former of these is especially characterized by the existence of symptoms of apnœa, and the pressing danger is caused by the more or less complete occlusion of the air passages by the membraniform exudation. The latter, on the other hand, is characterized by the predominance of symptoms of asthenia caused by the intensity of the general disease, and the danger to be apprehended is the gradual exhaustion of the vital powers. Although these two forms of diphtheria are so diverse in their more salient characters, and the kinds of danger which attend them, there is yet no doubt of their being only varieties of one and the same disease, for they not only occur constantly

during the same epidemic, but very often also in the same household, at or about the same time, and occasionally cases occur which partake more or less of the characters of both forms, usually, however, one of the two classes of symptoms predominate.

Although these two classes of diphtheria are the most important, they are by no means the only form of the disease. In every epidemic there are many cases in which neither the air passages are involved, nor are there any urgent symptoms of general constitutional affections, so that many of these, at any other time, would merely be regarded as cases of common inflammatory sore-throat. Again, cases may present themselves characterized by more or less diphtheric exudation in the fauces, but unattended by urgent symptoms. Such cases usually recover under any rational mode of treatment, and it is the consequent great apparent success in treating cases of such mild symptoms which has sometimes led practitioners to promulgate as a specific for diphtheria some medicine with which they have treated large numbers of them; the truth being that by far the greater proportion of these cases required only common care, and would probably have recovered without any medical treatment at all. But although these mild cases so often do well without any or no particular medicine, still caution is necessary against neglecting them, as even the mildest cases require careful watching, because either by an invasion of the air passages or by the accession of constitutional symptoms a case which in its first stages appeared of the mildest kind may subsequently assume a most serious form.

Charles Hunter, Esq., on the hypodermic administration of certain medicines. Mr. Hunter proposes the injection of medicines into the cellular tissue with their general therapeutic object in view. In the case of medicines thus injected for their general affects, he calls the method the "hypodermic" to distinguish it from the endermic and from the local injection of Wood. From the endermic method it differs much, it being a superficial application, which must be uncertain in its action, and which may act powerfully and dangerously or prove wholly useless. The hypodermic differs from the method of Wood, the latter plan having for its object the local treatment of local affections. The injection was supposed by Dr. Wood to be efficacious simply through

the localization. Theoretically this method must be limited in its sphere of action to neuralgia or sciatica; to those cases alone accessible to the point of the injecting syringe. Mr. Hunter, in advancing the hypodermic method, maintained that localization of the injection in neuralgic cases, was theoretically wrong, and practically unnecessary. In support of this he advances the following propositions:

1.—That equal effects followed distant and local injections in neuralgic cases.

2.—That by distant injections the ill-effects of repeated localization were avoided, such as local irritation, thickening of the skin, abscesses, etc.

3.—That diseases can be treated with benefit and curatively by this plan, which are neither local nor neuralgic, and which have failed to receive benefit from other modes of medicinal administration.

The hypodermic method is considered by the author superior to the stomachic, rectal and endermic modes of medicinal administrations in emergent cases, in which the indications are for anodynes, anti-spasmodics, hypnotics, and nerve-tonics. And he has found greater and more permanent benefit to accrue from this mode of treatment than from the stomachic use of morphia, atropia, codeia, and other alkaloids. Many hours often elapse before any benefit follows the use of stomachic medication, but by the injection of the cellular tissue the desired relief can be obtained in from five to thirty minutes, instead of after many hours.

Report upon the Epidemic occurring at "Maplewood Young Ladies' Institute," Pittsfield, Mass., in July and August, 1864, by Drs. A. B. Palmer, C. L. Ford and Pliny Earle. *(Boston Medical and Surgical Journal.)* Maplewood Young Ladies' Institute, a well-established and popular boarding school, at Pittsfield, Mass., has lately been visited by a violent outbreak of sickness, bringing prominently before the medical profession and the public, various questions connected with its sanitary condition.

During the later parts of July, 1864—from the 23d to the 29th—five persons were attacked with a severe form of disease, and up to the 10th of August some thirty others were sufficiently indisposed to require the advice of physicians. There were at the time

seventy-seven young ladies who were boarding, lodging and receiving instruction in the institution. Besides the principal and his immediate family, seven or eight teachers resided in the establishment. The whole family, including servants, consisted of about one hundred and twelve persons.

Of the five persons taken seriously ill, as before mentioned, one was a teacher, who recovered after a long and severe sickness; but the other four, three of them pupils, and the other a servant girl, died.

At the close of the term, on the 10th of August, the pupils hastily dispersed, many of them being so seriously indisposed at the time of leaving, that they performed their journeys home under the influence of quinine and alcoholic stimulants; while one, too ill to leave, remained sick for some time in the institute, and two others proceeded no further than a private house in the village, where they each suffered from a severe and protracted illness, but ultimately recovered. A week after the close of term, two young ladies, day scholars, residing in the village, were attacked in a manner similar to the others. Three servants were also attacked at the same time, one of which died, and numerous reports of sickness and deaths among those who had left were shortly afterwards received.

The large proportion of the pupils reported to have been attacked and the unusual severity and fatality of the cases, pointed to some local cause at the institute. A committee, consisting of Drs. Palmer, Ford and Earle, found upon special inquiries, that of the seventy-seven pupils in attendance, fifty-one have had typhoid fever. Of the remaining not reported as having typhoid fever, nine had, in a milder form, premonitory symptoms, which speedily yielded to treatment; one had dysentery; one reported slow fever, one anæmia, two unwell; the remaining considering themselves as "well." Of the 51 cases of typhoid fever among the pupils 13 terminated fatally, or about 25.5 per cent. The remainder having more or less recovered.

From the investigations of the committee it appears that the closet vaults have been shallow, and filled nearly to the surface of the ground with semi-fluid materials. A few rods from the building was situated, until removed last July, a barn which had been there

for many years, and beyond it a barn-yard containing water in which the swine were reported to have wallowed. The odors emitted from these sources, it is stated to have been such that not unfrequently windows were obliged to be closed, particularly at night, to prevent the influx of the outer air, as the confined atmosphere within the rooms was less offensive than the air from without. The conclusions to which the foregoing facts so strongly tend are, that the epidemic of typhoid fever at the Maplewood Institute, was caused by the malarial effluvia arising from these accumulations.

Miscellaneous.

On the Dysmenorrhœa, Metrorrhagia, Ovaritis, and Sterility associated with a peculiar form of the Cervix Uteri, and the treatment by division.

BY ROBERT BARNES, M. D.

The author described and figured the form of cervix uteri which projected into the vagina as a conical body, the vagina appearing to be reflected off at a point nearer the os internum than normal. The os externum was usually minute, scarcely admitting the uterine sound. This (the os externum) was the real seat of constriction. The os internum nominally was a narrow opening; and in these cases of dysmenorrhœa and sterility it was commonly found to be of normal calibre. It was, therefore, unnecessary to divide it, on account of the close proximity of the large vessels and plexuses running into the uterus on a level with it. The author maintained that this form of cervix was a cause also of retro and peri-uterine hæmatocele, and of peritonitis. All these consequences might arise in single women. In the married state the evils enumerated were aggravated, and new ones arose. Women with this peculiarity were generally sterile; and if they became pregnant it was early in life, before the further consequences were developed. These were flexions, deviations, inflammation of the cervix and body, hypertrophy. Discussing the question of treatment, the author showed that dilatation was unsatisfactory; that incision of the os interaum, as practiced by Dr. Simpson's single bistourie caché, and by Dr. Greenhalgh's double bistourie caché, was unsafe

and superfluous. He objected to the latter instrument, especially, that it must cut as it was set—that it was too much of an automatic machine, not leaving scope for the judgment of the operator. His (Dr. Barnes's) own instrument, constructed like a pair of scissors, acted on the same principle as Dr. Sims's; it divided only the os externum, so as to open the cavity of the cervix; the part to be cut being first seized between the two blades, the operation was perfectly free from risk; the hemorrhage was usually slight, and a good os was made. He had performed the operation many times, both in hospital and private practice, and was well satisfied with the results. One advantage of incision over dilatation was, that it relieved the engorgement and inflammation.

In illustration of the behavior of the conical cervix uteri under labor, two cases were narrated. In one, the cervix and os uteri had returned to their original state, although a fœtus of four and a half or five months' development had been expelled through them. In the other case it was necessary to open the cervix artificially by means of the author's cervical dilator and incisions in order to deliver a full grown child. In both cases pelvic cellulitis followed labor.

Dr. Baker Brown thanked Dr. Barnes for having brought the subject forward. He agreed with most of what had been stated in the paper; was opposed to dilatation as being inefficient and temporary. He described his mode of operating, which was to place the patient in the lithotomy position, and having introduced a bent speculum, he seized the os with a pair of forceps, and divided it with Simpson's hysterotome. He never divided the internal os; always used a plug of oiled lint to prevent hemorrhage. He regretted that the operation had lately been condemned by a high authority, but believed it was the only efficient and permanent remedy for these painful affections.

Dr. Greenhalgh was surprised to hear the President's opinion that the seat of stricture in these cases was mostly at the external os. He (Dr. Greenhalgh,) on the contrary, expressed his conviction that in the great majority of cases the stricture is situated at the internal os, and consequently he recommended division of the internal as well as the external os. After division he usually introduced one of his bilateral expanding stems, which keeps up

steady dilatation and prevents contraction. As regarded hemorrhage, which some appeared so to dread, he had never but once met with it, though he had operated in nearly one hundred cases. He always used his own bilateral instrument, which cuts both sides at once. The advantages of his plan of operating were, he believed, extreme exactitude, facility, painlessness, and the avoidance of any personal exposure. He expressed his surprise at the remark of Mr. Brown that he never divided the internal os, when he (Dr. Greenhalgh) had seen him on several occasions freely incise the internal os in the cases under consideration.

Mr. Baker Brown, in answer to Dr. Greenhalgh, said that that gentleman must be mistaken in what he had seen at the London Surgical Home. He repeated that he never in cases of dysmenorrhœa cut through the internal os. Dr. Greenhalgh was evidently confounding this operation with that for fibrous tumor, retroversion, retroflexion, etc., of the uterus, in which he (Mr. Brown) incised freely, and generally through the internal os.

Dr. Routh fully confirmed Dr. Greenlagh's views. For his own part he believed in by far the majority of cases the obstruction was at the *inner* and not the *outer* os; although he did not deny that in some cases of conoid cervix it was present at the external os. He agreed with Dr. Gream in believing that Dr. Sims's plan of operating would occasionally leave a deformed cervix for life; and he did not think it was necessary to cut through the entire cervix. The instrument Dr. Greenhalgh had invented obviated all danger from hemorrhage. The same was true of his (Dr, Routh's) instrument, which he, however, preferred, because on the bend, and therefore more easy of application in *flexion* cases. A little bleeding was salutary. In most of these cases there was a complication of congestion, which the very incision, by the subsequent hemorrhage, relieved. But there was no doubt that such incisions, however freely made, had a tendency to contract again. Hence it was necessary to keep the cut made patent by some internal uterine pessary, and for some time, it might be for months, so as to allow it to become properly lined with mucous membrane and incontractible. He knew several persons now walking about London with these. In other cases their removal had been followed by conjugal relations and pregnancy, though previously

sterile for years. Of the use of sponge-tents and other modes of artificial dilatation, in these cases, he spoke disparagingly. He had seen cellular abscess and death follow their use. They should be used with the greatest caution. He also believed cases of dysmenorrhœa were more common than was generally supposed. Not only was the seat of obstruction more frequently at the *internal* os than the *external*, but, indeed, in many cases, the external os was so patent and abnormally so, as shown by Dr. Henry Bennet. And there were many, and by far more numerous, cases of dysmenorrhœa which were in no way due to stricture at either os. As these cases were not, however, referred to by Dr. Barnes, he did not allude to them further. * * * * * *

Dr. Graily Hewitt thought that the two questions of the treatment of dysmenorrhœa and of sterility by means of incisions of the cervix uteri had been too much mixed up together. He would say a few words first respecting dysmenorrhœa. He believed that in bad cases of dysmenorrhœa the condition present was frequently retention of the fluid in the uterus, and that this retention caused the pain; and he had been at some trouble to prove this. But, on the other hand, he also thought that the condition was capable of being relieved, in most cases, without resort to mechanical treatment, of the cervix uteri. The great thing was to diminish the flow of blood, and this could be regulated by general measures; but that there were a few cases in which such general measures were useless, he admitted. He differed from the President in reference to the most common seat of the constriction; for although there were cases in which the os uteri was congenitally extremely small and narrow, yet in the larger number of cases of dysmenorrhœa, the impediment was situated at the junction of the cervix with the body of the uterus. With regard to the best method of applying mechanical relief when such was required, he thought that cases might be treated on their own merits. Where the cervix was hard and dense, the cutting operation was most indicated, the difficulty being here the greatest; but under other circumstances he preferred the use of tents as dilators. The sea-tangle tent was, he considered, a perfectly safe means of dilating the cervix uteri; but, he would repeat, the cases were few requiring this treatment. As to the mode of incising the cervix or os uteri, here

again the operation must be selected according to the case; no one operation would be suited to all circumstances. He would next say a few words on the subject of sterility. It was undoubted that in certain cases the cure of sterility could be effected by dilating the cervix uteri, and much had been said as to the superiority of one mode of dilating over another. The fact was, that so long as the canal of the cervix was a little enlarged, whether by incision or dilatation, the necessary end would be served. The great object was to secure a tolerable patency of the canal at about the menstrual period, when conception was most likely to occur. Supposing the sterility to be cured, the dysmenorrhœa which might be associated with it would be also, in all probability, permanently relieved.

Dr. Marion Sims was surprised at the great difference of opinion expressed by previous speakers as to the seat of the obstruction, but he agreed with those who thought it was at the lower orifice. He then went into some statistical details of his own practice, and laid great stress upon the frequency of curvature of the cervix as a cause of obstruction at the internal os. Though it might, he thought, lead to an actual narrowing of the canal, yet he believed this was an extremely rare occurrence. But in cases of induration and conoidity the os tincæ was abnormally contracted in every case he had seen. Indeed, a conical indurated cervix was incompatible with a normal os tincæ, the existence of the one almost necessarily implying that of the other. With regard to cases referred to by Dr. Gream and Mr. S. Wells, in which the tissue of the cervix had been too largely incised, so that the lips of the os were everted and rolled backwards, he had never seen any such result after his method of operating, but had witnessed it after the metrotome caché; and he attributed it to this—because it cut deeper into the sides of the supra-vaginal portion of the cervix, and so divided the circular muscular fibres, which are naturally antagonistic to the longitudinal fibres. By his (Dr. Sims's) plan of operating, the incisions upward were more superficial, though the opening of the os was about the same in both methods.

The President, in closing the discussion, said that he only directed attention to one class of cases of dysmenorrhœa—that, namely, associated with the peculiar projecting form of cervix

uteri, and usually attended by sterility. This was the form that required treatment by incision. The obstruction that required division was the os externum or vaginal portion. The os internum normally was a narrow canal. Dr. Greenhalgh had passed his instrument through it as preliminary to his operation. If it admitted this instrument, the os was of full normal size, and could not require cutting. His (the President's) instrument and operation were perfectly safe and efficient. He thought, after hearing Dr. Sims's remarks, that he had underrated the importance and frequency of flexion at the neck as a cause of obstruction.—*Proceedings of the Obstetrical Society of London, in London Lancet.—Chicago Journal.*

SYPHILIZATION.

Prof. W. Boeck, of Christiana, delivered at the theatre of the Meath Hospital, before the principal physicians and surgeons of Dublin, the following lecture on this subject:

By syphilization I understand the mode of treatment by which, by repeated inoculations of syphilitic matter, taken from primary sores, I bring the body into the condition that it is no longer susceptible of the action of the syphilitic virus.

It will, perhaps, be agreeable to you, gentlemen, before I proceed further, that I should lay before you a short *resume* of the history of this mode of treatment. Auzias-Turenne, of Paris, performed inoculations of syphilitic matter upon animals in order to see whether this virus could be transferred to them, which up to that time had been denied. In this he was at length successful, and it was chiefly apes which could with the greatest facility be inoculated. After chancres had been repeatedly produced in the same ape, a great many sceptical physicians wished to see his inoculation, and a meeting was appointed in the *Jardin des Plantes;* the old ape was inoculated, and a still greater crowd assembled a few days later to see the result. But when the ape was brought in nothing was to be seen. It may easily be imagined how the result was received, and that Auzias-Turenne was ridiculed, but he did not on that account give up the method; he continued his inocula-

tions, found that the old ape was not susceptible of fresh inoculations, but that a second ape after inoculations got chancres, though this ape also after a series of inoculations became unsusceptible.

Auzias-Turenne now saw clearly that he had here a natural law, in itself resembling that which your immortal Jenner had discovered in the inoculation of vaccine matter, and we shall not upbraid him that his French blood now carried him away, and that his first idea was to employ the inoculation of syphilitic matter like that of vaccine matter—as a prophylactic. We cannot gainsay him that his train of ideas is logically correct, but it is not practically correct, for the great rule is, that he only gets syphilis who himself will have it.

As the result of this idea of employing syphilization as a prophylactic, my friend Auzias wished at the time to syphilize all public girls, seamen, and soldiers, and he would willingly have syphilized us all. No wonder, then, that such an idea met with all the opposition it deserved; but it was not long until Auzias renounced his error, and at the same time there appeared an Italian, Sperino, of Turin, who showed, by a series of experiments, that the syphilitic disease was cured during these inoculations, which Auzias, too, at the same time, demonstrated. Still, this failed to reconcile physicians to the new method; such a prejudice had been raised against it that both the Académie de Médecine of Paris and the Academy of Turin condemned it without having the necessary materials before them for passing any judgment; the paradox involved in this method appeared to all so enormous as to render proofs of its absurdity unnecessary.

Lecturing in the University of Christiania upon syphilis, and having a section of the hospital devoted to this disease, I carefully investigated all that was advanced upon this subject, and ascertained that there must be some truth in it. I had, through a period of very many years, found that our treatment with mercury is highly unsatisfactory; I therefore considered that, from my position, it was my duty to give a trial to this new method, although it appeared to me as paradoxical as it did to all the world, and notwithstanding that it had been condemned by two academies. But before I began, I laid down for myself certain limits, to which I still adhere. It will be at once observed that I will not speak of

the method as a prophylactic; this would be immoral; but neither am I at liberty to employ it in every case of syphilis; it is only when syphilis has become constitutional—when the syphilitic virus flows with every drop of blood through the system—that I allow myself also to inoculate it upon the skin.

The next question is, whether I shall employ syphilization in every case of constitutional syphilis?

By a fortunate coincidence it happened that of the two individuals whom I first took under treatment by syphilization, the one had not been treated for syphilis, while the other had been the subject of all the resources of our art. In the first the inoculations proceeded without difficulty, the symptoms gradually disappeared—in a word, I found myself upon the beaten path. In the other case all was irregular, I could effect no order at all, and when my first patient was well, the phenomena in the second were still in full bloom. I immediately began to suspect that it was to the medicines previously given that this result was attributable, and on subsequently investigating this opinion, its truth has been most completely confirmed; so that I have made it a general rule to syphilize only those who have not previously been treated with mercury, whether this has been employed for primary or constitutional symptoms. But if I be asked whether syphilization has not some effect in these cases, I can answer decidedly in the affirmative—it often acts incredibly. Dr. Simpson, of Edinburgh, has recently described two such cases, which were sent over to me by Professor Simpson; what is there stated corresponds precisely to what I have myself noted, and of which any one may satisfy himself. But the reason why I do not undertake the treatment of such individuals is to avoid having relapses, which in these cases are apt to occur.

Now, in order to make my usual mode of proceeding as plain as possible, I shall suppose that a person laboring under primary syphilis consults me. In this case I treat the primary sore as a simple ulcer—I prescribe a weak solution of sulphate of zinc or such like, and occasionally employ a slight cauterization with nitrate of silver; I give no internal medicine, but make the patient come to me once or twice a week, that I may observe when the constitutional symptoms break out, for the earlier syphilization can

be commenced the better. So soon as I perceive the first constitutional signs, I commence the treatment by taking matter from an indurated chancre or from an artificial pustule in a patient under treatment by syphilization. I inoculate first on both sides of the chest, and make three punctures with a lancet, precisely in the mode adopted in vaccinating. After three days pustules are developed, and then I inoculate again in the sides, taking the matter from the pustules produced by the first inoculation, observing carefully to make the second inoculation at a distance from the first, so that the sores may not become confluent. At the end of three days I make the third inoculation, taking the matter from the pustules of the second inoculation; and I now continue to inoculate on both sides every third day, always taking the matter for the fresh inoculation from the pustules last formed, so long as this matter continues to afford a positive result. When it no longer takes, I procure new matter in the same mode as for the first inoculation, and continue with this as with the first. This second matter will yield smaller sores and a shorter series than the first, and when it no longer takes I procure a third and proceed in the same manner. This third matter will produce very little effect, and I therefore pass to the upper arm, where I proceed in precisely the same mode as in the sides; and when no effect is any longer visible in the upper arm I remove to the thighs, and continue there in the same way as in the two preceding places. By the time the inoculations are here brought to an end, from three to three and a half or four months have probably elapsed, the symptoms which manifested themselves from the commencement have disappeared, or if some slight symptom has remained this disappears spontaneously. It often happens that during the treatment a fresh outbreak takes place, and he who is not acquainted with the method believes that some other plan must now be adopted; another infers that syphilization is of no avail. But, let them not be deterred by any symptom, not even by the most severe iritis, which never requires anything but the instillation of a little atropia. But, happen what may, let them shut their eyes to it and continue the inoculations. The patient who, during the whole treatment, can attend to his business, feels, after it is completed, perfectly well, and may immediately expose himself to any hard-

ships. He can endure wet, cold—in a word, everything which after mercurial treatment would render him liable to life-long illness. It is probable that I may now be asked as to the result at a later period for these individuals, and I shall speak first of the relapses. On the whole, I have treated 429 individuals, and of these 45 have come back, making about 10½ per cent.; but, as we may calculate that some of those treated during the last year will return, I will assume that the relapses will amount to 12 or 13 per cent. But, let us now examine more closely what is called a relapse after syphilization. In many instances a single mucous tubercle, a small white spot on the tongue or in the throat—symptoms for which nothing more than external means is employed, and for which the patients are treated only for a few days in hospital. So far as I at this moment remember, thirteen were taken again under treatment with syphilization, and two with iodide of potassium.

You will next ask whether tertiary symptoms have been developed in any of them. This has been the case, I believe, with three; but at the same time these individuals have been perfectly well—their general health has not, as so often happens after mercurial treatment, been broken down, and in those who have had relapses it has been good, as it is evident that in those who have had no relapse it has been particularly good.

We come now to the children of those who have been syphilized. Here we are not much better off than after the mercurial treatment; we see the same rule to prevail as after this last method, namely—that when the mother has been syphilitic, the first child or children is or are syphilitic; that they are healthy is the exception. If the father has been syphilitic, the children are, in general, healthy; that they are syphilitic is the exception.

You will next propose to me the question how I treat syphilitic children. I treat them precisely as I do adults; and it is interesting to see that the sores in these little ones bear in size a proportion to that of the child, and that the patients suffer less, and not more than adults. The results of syphilization in children with hereditary syphilis have not been brilliant; of forty-two children, twenty-two died, but I have taken under treatment every case that I have met with, and every one knows that in such children there

are very often affections of the internal organs which lie beyond our power to cure. I cannot at this moment say how many little children with acquired syphilized, but they are not few, and of these only one died, the cause of death in that instance being croup after I had performed tracheotomy. Of adults, two died—an old woman of dysentery, and a young women of puerperal fever. This latter case I forget to include in the *resume* I have given in the *British Medical Journal.*

Now, in order to give you a definite idea of the confidence I have in this method after having practised it daily for thirteen years, I shall say only that if I myself, or any of mine, were so unfortunate as to get syphilis, I should employ no other means than syphilization.

Still a few words in conclusion, gentlemen. Vaccination has for many years stood alone; syphilization now comes to join it. Shall we stop here? I believe not. Vaccine and the syphilitic matter are both animal viruses; we see them contained under a similar law. May not also the other animal poisons be referred to a similar law? We see that nature is simple in her diversity: should this not also here be the case? Should not glanders, hydrophobia. etc., some time be curable? Let us all seek to clear up this dark point in our science, and let us not, as hitherto, with respect to syphilization, seek only to extinguish the rising gleam.—*Med. Times and Gaz.*, June 10, 1865. *American Medical Journal.*

Epilepsy Successfully Treated by Bromide of Potassium.

M. Bazin has successfully treated a case of epilepsy by the bromide of pottassium. The patient was engaged in trade, forty years of age, of a sanguine temperament and robust constitution, but he had sunk into a melancholic condition; and one day he fell down in the public streets in an epileptic fit, which was succeeded by other attacks, recurring more and more frequently, until at last several occurred in the same day. In proportion as the attacks became more frequent the intellectual faculties were altered, as well as the functions of nutrition. Under these circumstances M. Bazin administered the bromide of pottassium in progressive doses and this treatment was immediately followed by a cessation of

the fits; and in five months from the time when the treatment was commenced there had not been a single attack, and all the physical and intellectual functions were restored. In three other cases of epilepsy, in private practice, M. Bazin found the bromide of potassium equally successful, although the disease had previously resisted different kinds of treatment. The mode of administration adopted by M. Bazin was to form a solution of the bromide in the proportion of 20 grammes (a gramme is about 15 grains), to 300 grammes of distilled water; two tablespoonfuls of this solution, representing 30 grammes, contained 2 grammes of bromide. In the adult he commences at once with this quanity of two spoonfuls—one dose in the morning, and one in the evening, before meals. Every five days the dose is increased progressively by one spoonful up to eight or ten spoonfuls a day. This last dose is continued more or less, according to the degree of resistance of the disease. When the attacks are evidently modified, the quantity of the medicine is diminished in an inverse progression to four spoonfuls, a day, a quanity which is continued for several months, even after the cessation of the attacks. In children the medicine is given in the same manner, substituting a teaspoonful or less for the larger doses, according to the age of the patient.—*British & Foreign Med. Chir. Rev.*, July, 1865, from *Gazette des Hopitaux.*

Habitual use of Purgatives.

Dr. RADCLIFFE considers the habitual use of purgatives to be needless in all cases, and harmful in very many. He states that the bowels will act well enough if the diet be properly regulated; and he argues that the natural way of preventing constipation is to take care that the food be not deficient in oily and fatty matters, and (in suitable cases) in green meat. He states, also, that the cases in which purgatives are habitually resorted to are very generally cases of old age and of debility in various other forms—cases in which the constipation which it is intended to correct is a salutary condition rather than otherwise. He argues that the kind of diet most suited to the wants of the system in all these cases is one which (by the exclusion of the more indigestible and innutritious kinds of food) does not dispose to frequent stools, and in addition

to this, that the same result is brought about in some measure by the digestion being much slower than it is in vigorous health. In these cases, in fact, he argues that constipation, within certain limits, is a state to be encouraged rather than a state to be corrected; and he protests against the common notion that the bowels ought to act every day, as a practice which is nearly as bad as that of Sancho Panza's mock doctor at Barataria, which was to take away the dish from the table before there had been time to make use of it.—*Med. Times and Gaz.*, August 19, 1865.—*Am. Medical Journal.*

Diphtheria—A Circular from Dr. Norton.

Dr. O. D. Norton of Cincinnati, was placed on a special committee by the American Medical Association to report on Diphtheria. He has handed us the following list of queries, and any of our readers who have had opportunities for observing the disease, will confer a favor that will be appreciated and acknowledged, by corresponding with Dr. Norton:

I. Has Diphtheria occurred in your practice? If so, when did it first make its appearance? (Please state the year and the months in which it prevailed, and how many cases came under your observation.)

II. Did it occur as a Sporadic, Endemic or Epidemic disease?

III. Did the disease affect one class or age more particularly, and what were its general characteristics?

IV. What in your opinion are the general and what the exciting cause or causes of the disease?

V. Do you consider Diphtheria and Scarlatina identical?

VI. Do you consider it communicable?

VII. What other diseases were especially prevalent at the time?

VIII. Do you know of any disease having affected animals during the occurrence of Diphtheria in the community?

IX. Have you seen the Diphtheritic membrane developed upon the cutaneous surface or upon wounds?

X. In what proportion of cases has the disease invaded the Larynx? Also, the Œsophagus?

XI. What have been the Sequelæ?

XII. What has been the result of Post Mortem or Microscopical Examinations?

XIII. In what proportion of cases have you found Albumen in the Urine?

XIV. What has been the rate of mortality? and what the immediate cause of death?

XV. What was the general course of treatment pursued by you, and what particular remedial agents seemed to be most productive of good?—*Cincinnati Lancet.*

Death of Professor Timothy Childs.

We are pained to announce the death of this well known and highly esteemed member of the profession, at Norwich, Conn., on the 3d inst., from the effects of an excessive dose of morphine, administered by himself. Dr. Childs was a native of Pittsfield, in this State, and filled for many years an honorable place as Professor of Anatomy and Surgery in the Berkshire Medical College, and more recently as Professor of Anatomy in New York Medical College. He also served with distinction as assistant-surgeon to a Massachusetts regiment in the Mexican war, and on numerous occasions acted as a volunteer after the great engagements of the recent war. He was endeared to a large circle of friends by his kindness of heart and genial disposition, and his death will be widely mourned. It is thought he was laboring under temporary insanity at the time of his death.—*Boston Medical Journal.*

The Non-Transmission of Syphilis by Vaccination.

This is the title of a paper by Professor W. Boeck of Christiana, a translation of which was read at the late meeting of the British Medical Association. The following outline of it we find in the *British Medical Journal:*

"In it the author stated that he had most carefully examined the question, whether syphilis could be transmitted by vaccination; and had been unable to find any evidence in favor of such transmission either in published records or from experiments performed

by himself. He related instances in which he had vaccinated syphilitic children, and had endeavored, but without producing any result, to inoculate with the matter obtained from them two patients suffering from elephantiasis. He considered that no doubt should be thrown on vaccination unless on the most convincing evidence; and, while he did not deny that syphilis might be transmitted by vaccine matter, he must withhold his belief that such an event could occur until he saw it. The facilities for observation were great in Norway; but the transmission of syphilis by vaccination had never there been observed."

Editorial Department.

Reasons for fearing the appearance of Cholera or other Epidemic.

There appears to be a prevailing fear, both with the profession and public, that cholera is again to visit our country, growing out of the excitement regarding its prevalence in various places on the continent of Europe, its rumored appearance in England, and the history of its former rise and progress from the old world westward to the new. This is perhaps sufficient ground for fears that we shall not long remain exempt from the disease; but there are other reasons much more potent, which should make us fear, in our large cities, the outbreak of cholera, or some equally alarming and fatal epidemic. All observation and experience go to prove that epidemic disease is induced mainly by local causes, and that the absence of proper sanitary regulations in our large cities constitutes a much greater ground of apprehension than the history and progress of any former outbreak of disease. The sanitary condition of New York is reported as fearful beyond all parallel; the filth and stench of the lower and crowded portions of the city being indescribably disgusting. In this great cess-pool of corruption, may at any time be generated the poisons, of epidemic disease, cholera, plague, fever, any of the forms of disease which such causes generate are liable to spring up, named, to be sure, by accidental circumstances, but still always the same, producing death in fearful numbers, and from almost uniform causes. From New

York and other large commercial centers, epidemic diseases radiate; wherever similar food is prepared, thither would spread the fatal plague.

New York, Philadelphia, Boston and New Orleans, are not alone centers for the spread of epidemic disease, and we had not proposed to speak of other cities, but more especially to suggest some causes for apprehension in our own, as it is called, cleanly and beautiful city. Buffalo is situated, hygienically, in unsurpassed beauty and attraction, and ought to be the healthiest city in the world; our streets are broad, well paved and drained, and fanned by a lake breeze, not so bleak as represented, still strong and healthy; they are washed and swept, and perhaps no city in the world can boast of finer, cleaner streets, or more perfect ventillation. As in all cities there is a fine outside show upon the principal streets, but upon the inside, underside and backside there is an untold amount of corruption. It is not in the better portion of the city we look for the generation of disease, but even here we shall be astonished at the frequency of sanitary neglect. It is not from London or New York or other city, that the people of Buffalo may expect cholera or plague, or other fatal epidemic disease; it is not coming from these sources, half so certainly as from their own alleys and yards and vaults (?) (if pyramids are vaults, then we may call these stacks in the outhouses vaults.) Cholera and typhoid fever are no doubt coming—are indeed already here in incipient stage, and unless our board of health look after and remove these causes of disease, and do it now, while the season is favorable for such regeneration, it should be itself removed, and the citizens commence immediately, the labor properly belonging to the board of health. We understand that the sewerage is also very imperfect, not from lack of what are called sewers, but from complete obstruction, by years of accumulation. We know that many of the lesser branches are completely obstructed, and we hear from the most reliable sources, that the "mains" are also in many instances in the same condition. Worse still, the city is now ordering streets paved and improved and wholly neglecting the important subject of drainage; this is being done in one instance upon a street where is is situated one of our greatest and most important public charities; where the sick are sometimes

congregated in great numbers, and where in case of epidemic still greater numbers would almost certainly be conveyed for temporary relief. This institution has suffered for want of sewerage, beyond all estimate; its medical staff and other officers have repeatedly protested against its condition, and several deaths have occurred, almost certainly traceable to sanitary neglect; notwithstanding all this, we see the street paved and made to present a fine exterior, *without the construction of a sewer*—the very thing above all others which the health of the neighborhood and city required.

If, as a city, we neglect the common decencies of civilization and allow the town to grow foul with unhealthy and sickening odors, the public charities to become pestilential nuisances, and private residences whited walls, partially concealing the unwashed, uncleaned, unsewered yards, from which continually emanate disgusting and deadly odors, then we may well dread and fear the outbreak of pestilence.

It will appear to some that we are overdrawing our sanitary condition, and that we are not so bad as we represent; on the contrary one-half is not told. Physicians—the guardians of the public health, may speak plainly and in season, but party and office, control everything, "though one rise from the dead." his voice would not be heard; we have official prophets and apostles, we must hear them. We hope to hear them and observe their works. The present time of comparative health should not be allowed to pass without the most thorough washing, draining and ventilating. All the sources of impurity should be removed, such as open-mouthed, obstructed drains, overflowing vaults, open cess-pools, etc., etc., a vast number of which exist, and are a fruitful source of disease at all seasons; in a time of epidemic, a thousand fold increased for evil.

Our citizens manifest some anxiety upon the subject of cholera by frequent inquiries as to the probability of its appearance next season as has been predicted. Upon this point we do not so much desire to remark as upon the other and more practical question; how shall the virulence of epidemic disease be abated? for, whether cholera appear or not, fatal disease will certainly and in vast numbers of instances be the effect of total neglect of sanitary precautions. Other towns and cities have already commenced this work

of protection, and we hope that Buffalo will not remain unmoved, when every motive of humanity urges to immediate and energetic action; it is a measure which can now be safely adopted, but the spring and warm season upon us, and our time is past; the stagnant sources of disease are safer, if left unstirred.

Books Reviewed.

Researches on the Medical Properties and Applications of Nitrous Oxide, Protoxide of Nitrogen, or Laughing Gas. By George J. Ziegler, M. D., Physician to the Philadelphia Hospital, Member of the American Medical Association, Member of the Academy of Natural Sciences of Philadelphia, etc., etc. Revised and republished from the Medical and Surgical Reporter. Philadelphia: J. B. Lippincott & Co. 1865.

The author treats this substance under several heads: First, the "chemical constitution, properties and correlations of protoxide of nitrogen; second, its physiological influences and hygienic uses; third, its medical properties and applications, therapeutic, revivifying, antidotal and anæsthetic; fourth, its preparation and combinations; and fifth, its modes of administration and dose."

The enthusiasm of the author is unbounded, and he speaks of his hoppy-horse as though it should have been supplied instead of common air, being better suited to the wants of the animal economy than any other discovered substance. We will allow our author to speak for himself, and our readers to judge:

"In brief then, through its constituent elements and dynamic properties, nitrous oxide exerts a powerful influence in both supplying essential matter for organization, and in promoting the general molecular, cell, nutrient, reproductive and dynamic operations of the animal economy, those of the vegetal, animal, and psychical life inclusive. It is thus indeed, remarkably active and potent in promoting the various functions of digestion, absorption, circulation—both general and capillary—aeration or arterialization, hæmatosis, calorification, assimilation, disintegration, depuration, secretion, excretion, muscular and general contractility, innervation and intellection; and likewise, those of the reproductive system. Hence, for the preservation of the healthy integrity of the body and the regulation as well as invigoration of all the important functions of life, this agent may, *cæteris paribus*, be always employed with advantage. This concise but comprehensible out-

line of the sanitive effects and applications of protoxide of nitrogen will suffice to show that in an hygienic point of view it is both unique and invaluable. * * * * * * *

"Thus in comprehensive terms, nitrous oxide is a direct, potent and permanent chemico-organic, arterial, nervous, cerebral and general stimulant, secernent, depurant, aphrodisiac and antitoxic, having a special tendency to the blood, brain, nervous system and genito-urinary organs. It exerts a powerful invigorating influence over the entire economy and is a superior nutrient, hæmatic, neurotic, tonic, disintegrant, diuretic, disinfectant, alterative, resolvent, sorbefacient, antidote, antiseptic, etc., etc. Its primary action is usually prompt and frequently well marked, though somewhat transitory in character, while its secondary or more remote effects are permanent and highly salutary, the difference between them being more in degree than in kind, for, as before stated, the invigoration is generally continuous and persistent without subsequent depression, as is the case with most other stimulants. The properties and influences of nitrous oxide are, in other words, both organic and dynamic; organic in supplying the material elements—nitrogen and oxygen—for the various chemical purposes of the economy; and, dynamic in stimulating the functions of the whole body. Thus both through its constituent elements and dynamic influences it promotes the chemico-organic and dynamic operations of the animal organism, and while thereby regulating normal, resolves as well as prevents abnormal action. * * * * * * * * * * *

"In general nitrous oxide is of great utility in the treatment of those asthenic conditions in which the material and dynamical processes of the animal economy are in abeyance, and which are so frequently exhibited in the inertia of the various functions of the organism, those of the vegetal, animal and psychical life inclusive. It is therefore especially indicated in indigestion and inefficient absorption, as also in general inactivity of the chylopoietic functions; in imperfect aeration or arterialization of blood and deficient hæmatosis; in mal-assimilation and disintegration; in insufficient secretion and depuration; and, in irregular or defective mobility, contractility, innervation and cerebration. Hence in the various forms of asthenic dyspepsia and other morbid states

dependent upon or associated with torpidity of the chylopoetic viscera; anæration, anæmatosis, and mal-nutrition generally, both primary and secondary; in depraved and defective secretion and depuration; in enervation, neuralgia, chorea, paralysis, melancholy, amentia and adynamic states generally, the nitrous oxide will, doubtless, always prove more or less useful as a curative agent.

"Protoxide of nitrogen is, moreover, strongly indicated in atonic conditions of the genito-urinary apparatus, more especially in inertia and such other abnormities of the urinary and reproductive organs as are presented in cases of incontinence and suppression of urine, paralysis of bladder, spermatorrhœa, impotence, sterility, some forms of amenorrhœa, dysmenorrhœa, leucorrhœa, menorrhagia, etc., as it has a special tendency to these organs, and exerts a powerful influence over their functions."

Perhaps it will not be worth while to continue our quotations. Sufficient has already been presented to show our readers the value of *protoxide of nitrogen*, according to the views of our author. Whoever desires to know more can learn all about it by reading this book.

Books and Pamphlets Received.

Lectures on Inflammation: Being the first Course delivered before the College of Physicians of Philadelphia, under the Bequest of Dr. Mutter. By John H. Packard, M. D., Author of "A Manual of Minor Surgery," Translator of Malgaigne's "Traite des Fractures," Secretary of the College of Physicians, etc., etc. Philadelphia: J. B. Lippincott & Co. 1865.

National Lyrics. By John G. Whittier. With Illustrations.

Songs for all Seasons, By Alfred Tennyson. With Illustrations.

Lyrics of Life. By Robert Browning. With Illustrations. Boston: Ticknor & Fields. 1865.

Medical Lectures in Buffalo.

The regular term of Lectures in the University of Buffalo commences November 4th. There are no changes in the Faculty so far as we are informed. Prof. White gives his course of Lectures upon Obstetrics and the Diseases of Women and Children, before leaving upon a tour of Europe. The preliminary term is largely attended, and there are flattering indications of a large class.

Lectures in Bellevue Medical College.

Lectures commenced in the Bellevue Hospital Medical College Oct. 11. The vacancy in the Faculty, occasioned by the sudden death of Timothy Childs, has been filled by the transfer of Prof. Smith from that Chair of Surgery to that of Anatomy, while that of the Principles of Surgery have been added to the Chair of Military Surgery, filled by Prof. Hamilton.

Miami Medical College.

The first term since the re-organization of this school, commences the first of November. It will be observed by reference to our advertisement sheet, that this school has fixed a *matricalation fee* of $15 00, and makes no charge for Professors' tickets.

Transactions American Medical Association.

PHILADELPHIA, Sept. 28, 1865.

Dear Doctor:—Just received your Journal for September. By the enclosed Circular you will see that the subscription price is ($5) five dollars. Therefore you will please, in your next issue, change 3 to 5. The volume is fast approaching completion, and I hope shortly to place the copies in the hands of the subscribers.

I shall be most happy at any time to furnish any information relative to the Association to yourself or subscribers, and also would be glad of any suggestions for the benefit of that body, which, if properly sustained, is destined to become a vast power in the profession.

Very truly yours, etc. WM. B. ATKINSON.

PHILADELPHIA, September, 1865.

Dear Sir:—In accordance with a resolution of the AMERICAN MEDICAL ASSOCIATION adopted at the meeting held in Boston, June last, you are respectfully invited to contribute the sum of *Two Dollars*, in addition to your assessment, to meet the expense of printing the volume of Transactions of that meeting.

The volume will make about 842 pages at an estimated cost of $3.400. There are in the hands of the Treasurer only 2,200, leaving a deficit of $1,200 to be made up by subscription, and without which the volume cannot be issued. The high price of labor and material, and the large number of illustrations make it impossible to reduce the estimate below the amount named, and the Committee of Publication are therefore reluctantly compelled to make this appeal in order to enable them to go on with the work.

Please encolse your contribution to Dr. CASPAR WISTER, No. 1303 Arch Street, Philadelphia.

Very respectfully, yours,
FRANCIS G. SMITH, JR.,
Chairman Com. of Publication.

PREMIUM OFFERED.—Dr. T. C. Brinsmade of Troy, N. Y., offers a premium of $100 for the best essay on medical and vital statistics, with a plan for hospttal reports and records of private practice, and a draft of a registration law. The essay is to be handed to the Committee of the New York State Medical Society on Prize Essays by the 15th of December next.

BUFFALO
Medical and Surgical Journal.

VOL. V. NOVEMBER, 1865. No. 4.

ART. I.—*Transactions of the Medical Society of the County of Kings.*

NOTES ON MILITARY SURGERY.

BY WM. C. OTTERSON, LATE SURGEON U. S. VOLUNTEERS.

REGULAR MEETING, JULY, 1865.

In making the promise to present to the Society a paper on "Military Surgery," I had in view a brief synopsis of some of my most vivid recollections of army experience. In the scope of a communication of this character but very small portions of so wide and fertile a field as that of Military Surgery can be included, and I shall confine myself to the consideration of the changes wrought in the constitution of the volunteer soldier by the new influences to which he is subjected. A few remarks on the frequency, character and treatment of the wounds produced by weapons of war, and a notice of some of the diseases peculiar to large military hospitals.

The raw recruit, as he falls under the eye of the surgeon, differs in some respects from patients of any other class. The radical change from a life of peace to one of war produces no less change in the physical than in the moral constitution. The farmer, the mechanic, the tradesman from the country, has been accustomed to quiet, regular habits, to good food, well prepared, to good beds and shelter, and to clothing sufficient for cleanliness and comfort. Often those from the city are broken down by dissipation and excesses. In the soldier's life the food is often insufficient and almost always badly prepared, there is exposure to the vicissitudes of season and climate with either no shelter, or what is worse, the shelter of crowded, illy-ventilated barracks, reeking with the

mephitic exhalations of organic excrementitious matters. The frequent recurrence, and long continuance of those pestiferous influences in railroad cars and transports thoroughly poisons the system, and even before the soldier reaches the field he bears, implanted within him the fertile seeds of disease, or is dropped by the way-side, rarely to rejoin his command. Acute scorbutus, acute diarrhœa and dysentery, typhoid fever, erysipelas, pneumonia now prevail, and not so in civil practice. We are often utterly powerless to remove the exciting causes. The veteran who has passed safely through this stage of the soldier's life, bears his ills with greater endurance, we cannot say indifference, for no man can be indifferent to his own sufferings; but there is no pang more intense than that of the young recruit when he first falls sick, and fully realizes that he, among strangers, away from home—a home, though poor it may be, whose associations are all intensified by his nostalic condition. His physical infirmity may be mild, but if sufficient to separate him from his companions, his mental suffering is intensified by his powerless confinement and subordination. Coleridge says—

> "Home-sickness is a wasting pang,
> This feel I hourly, more and more;
> There's healing *only* in thy wings,
> Thou breeze that play'st on Albion's shore."

If the deleterious influences I have mentioned are so productive of disease, how much more pernicious must they be when acting on the system of a sick or wounded man? Must these evils remain the inevitable consequences of war, or will sanitary science step in to mitigate or remove them? When will the practical fact be duly recognized that the prevention of disease is vastly more economical of life and treasure than its cure?

I can only glance at a few of the diseases met with by the military surgeon in camp and hospital in the scope of such a paper as this, but of these I will choose the most prominent and distinctive.

Erysipelatous Pneumonia.—Those liable to this disease may be of any age or temperament, the oldest and most infirm being, of course, most subject to its attack. The patient may be admitted to the hospital with any of the diseases or wounds incident to a soldier's life. In a few days pneumonia is developed, and soon

after (two or three days) erysipelas sets in, which may be either idiopathic or traumatic. If the former, it is most apt to attack the head, face or chest, but will often occur on the extremities. The erysipelas may even precede the pneumonia, the latter following the sudden disappearance or metastasis of the former. In such cases I have frequently called the attention of the medical staff of the hospital to patients where erysipelas had suddenly disappeared, predicting the development of pneumonia within forty-eight hours, the prognosis being rarely falsified by the result. I am well satisfied that this occurs too often to be a mere coincidence, and that the same influences and *materies morbi* may produce either erysipelas or pneumonia, or both; that where erysipelas prevails in large hospitals, as an epidemic, the number of cases of pneumonia is *always* greatly increased. I do not mean to say that *every* case of pneumonia will be attended with or followed by erysipelas, or conversely; the observation applies to those cases in which one or the other of these diseases is developed in the wards of a large hospital. The treatment should always be that of tonics and stimulants, with the most nutritious diet. The mortality is always large, and the post-mortem changes are found mainly in the lungs and brain.

Wounds.—By far the least frequent are those inflicted with the bayonet, as charges *en masse* are hardly ever received by the party assailed. The saber wound is also rare. We often read of cavalry charges, but seldom see on the field or in the hospital the terrible consequences we would be led to expect. In the charge of the "light brigade" the slaughter was produced by "cannon to right of them, cannon to left of them," and was inflicted *upon* the cavalry. A hand-to-hand conflict between cavalry, with the use of the saber, is very rare in our mode of fighting, and it is seldom that in flanking infantry do not escape without being badly cut up or surrender without much resistance. Our cavalry is armed with carbine and pistol, on which they rely rather than on the saber.

Next in frequency are wounds from batteries, from round-shot, shell or shrapnel; but by far the most frequent are those from small arms, rifle, musket and pistol. The penetrating wound from a bayonet is grave, according to its situation and depth; the saber wound combines the incised, lacerated and contused. Wounds

from round shot and shell are almost always fatal if there is a breach of the integument; for the most part they are lacerated; in those from the explosion of shell the laceration of muscle and the comminution of bone are frightful; the part looks as if it had passed through a threshing-machine; in wounds from round shot and shell death is most often instantaneous.

The conical rifle ball produces a very ugly wound, lacerating the soft parts, and in coming in contact with a bone (if not spent) comminuting it extensively. In striking the shaft of a long bone the splitting for several inches is as if done with a dull hatchet; the round ball from the old fashioned musket is far less destructive, and it is often diverted from the direction by contact with bone.

Treatment of Wounds.—A wound inflicted by a weapon of war, *never* heals by first intention; the suture and adhesive strap are seldom needed, and if used, almost always do harm. Foreign bodies in wounds should be removed without delay, if accessible, but persistent probing and cutting for balls, etc., is *meddlesome surgery* and bad practice. If the foreign body lies near a joint or a vital organ, and can be detected there, it should be removed at all hazards. Under ordinary circumstances the finger is the best probe, but when the wound is small or the track deep Nélaton's porcelain-capped probe will often decide a doubtful point. All gun-shot wounds should be dressed for the first few days with lint wetted with cold water. No other local treatment is required. No constitutional treatment is usually indicated; care must be taken not to depress the vital powers; their sustenance is oftener demanded. Unless the missile divides a large artery, and the patient dies from loss of blood before he can be removed from the field, hemorrhage is not so great nor so fatal as would be supposed; the laceration of the artery and of the tissues is so great that the patient faints from shock and loss of blood and the flow ceases. If by the sloughing of a wound of the extremities a principal or secondary artery become involved and secondary hemorrhage suddenly occurs, carefully adjusted compression with the moderate use of the tourniquet should first be used, but the persistent tightening of compress and bandage, if the hemorrhage returns is not, according to my observation, good practice.—

Neither will the ligation of the principal trunk save your patient or his limb. Amputation in these cases is the only safe and sound practice. Where wounds of arteries occur in the neck we have no choice but ligation; both of the artery and vein it may be; if possible on both sides of the wound in the artery.

Of wounds of the cavities, the head, chest, abdomen and bladder a considerable proportion will demand the care and skill of the surgeon. All foreign bodies should be removed; a fragment of bone is as much a foreign body as a piece of shell, wood or cloth, or a bullet, or grape-shot. It must be borne in mind that very extensive wounds of the cavities are not necessarily fatal. Cases of recovery are on record where nearly half the head has been blown off, and I have seen quite a number of cases recover where a grape-shot or Minié ball had traversed the chest, abdomen or bladder. In wounds of the skull the trephine is rarely required, as depressed bone can almost always be elevated through the wound produced by the missile. The head should be shaved; if there is hernia cerebri with laceration of the meninges, that portion which cannot be reduced should be smoothly shaved off with a sharp knife. A compress and light roller kept constantly wet with water completes the local dressing. If the patient can swallow he should be freely stimulated and nourished with food easily elaborated. Opium may be given if necessary without that fear which has always attached to its use in injuries and diseases of the brain. Ice to the head and stimulating injections fulfill important indications. If the bladder is paralyzed, the catheter should be used once in twelve hours; this should be carefully looked after in all severe injuries where the patient is unconscious.

In wounds of the chest there is little to be done locally. I have had no experience in "hermetically sealing" these wounds, and think that while it might occasionally act well, in most cases it would be decidedly injurious. It is no doubt owing to the collapse of the lung when wounded that so many recoveries are on record. The patient should be placed in the most comfortable position, which will usually be the sitting position, giving the thoracic and abdominal muscles full play in the movements of respiration. Bandaging the chest in these cases tends to further embarrass the breathing, and hence should be discarded. A few thicknesses of wet lint over the wound is all that is required.

In wounds of the stomach or abdomen keep clean, give full doses of opium; nourishment and stimulants may be given by the mouth or per anum, as the case may demand. Where the intestines are wounded and protrude, they should be carefully washed with warm water; should be sewed up by the glover's stitch, with iron or silver wire, and returned; the wound should be closed with adhesive straps, and a broad bandage fastened around the abdomen.

Where the bladder has been wounded, so as to give rise to extravasation of urine, the catheter should be retained in the bladder either through the wound or through the urethra; but if its presence give rise to great uneasiness and nervous irritability, it should be removed at intervals to avoid more serious symptoms from its retention than from the passage of urine through the track of the wound. A ball or other foreign body lodging in the bladder may sometimes be removed by simply enlarging the wound or by the operation of lithotomy.

Wounds of the penis, when they involve the track of the urethra, are sometimes quite troublesome, and without great care the contraction of cicatrization produces not only deformity of the organ, but almost entire occlusion of the urethra. The same rule obtains here with regard to keeping the catheter in situ as in wounds of the bladder. When the process of cicatrization begins a stiff leather splint, properly moulded and fenestrated to allow the escape of discharges will sometimes be useful in preventing deformity. Extensive sloughing and infiltration will frequently occur; the first must be met by active escharotics, such as nitric acid, permanganate of potassa, bromine, etc., the second by free incisions made in the long diameter of the organ. Milder cases of sloughing may be counteracted by the application of chlorine water, charcoal, beer, etc. The constitutional treatment must be stimulating and anodyne, with nutritious diet.

Wounds of the scrotum, involving the testes, and producing hernia of the tubuli seminiferi should be treated by extirpation of the wounded organ, as under other circumstances the healing process is very tedious, and the function of the organ destroyed. Where the operation is resorted to promptly recovery is usually rapid.

Probably no class of cases causes the military surgeon so much

anxiety, or is the subject of such various opinion and practice as compound fractures of the femur. Unfortunately in a large number of cases the *law* of *expediency* must overrule all other considerations. However much opposed the surgeon may be to immediate amputation, as a rule, its propriety ceases to be a question when the patient must be transported many miles over execrable roads, before reaching the shelter of a hospital. I trust the plaster of Paris splint, as recommended by Dr. James Little, of New York, may be thoroughly tested, and hope it may overcome the painful difficulties of transporting cases of fracture. Many lives and limbs might be saved could the patient be transported without jarring and laceration and grinding of the tissues by the fragments of broken bone. The great majority of our best military surgeons are in favor of the conservative plan of treatment. The course I invariably adopted, and it met the approbation of my medical staff, was to give the patient the benefit of the doubt when there was any chance of saving the limb; never to make a *primary* thigh amputation where the chances that *life* (not the limb) could be saved by putting off the operation. It must be borne in mind that we often attempt to save a limb with little hope of its being ultimately useful where immediate amputation would almost surely prove fatal. After the battles of Chickamauga and Lookout Mountain, where the brave Eleventh, with Hooker at its head, bore our victorious banner above the clouds, a great many compound fractures of the femur came under my observation. At the end of three months most of these cases were doing well, and in quite a number there was a fair prospect of a moderately useful limb. It may be asked what kind of apparatus is best suited for cases. Machinery for fractured femur is as varied as the surgeons who may have to use it are numerous. The surgeon should bear in mind that his first care must be to save the patient's life; his second to save the patient's limb; his third to make him as good and useful a limb after the critical stage has been passed as the patient's constitution and his own skill will permit. For the rational treatment of compound fractures of the femur by gunshot wounds, it is quite impossible to lay down any but general rules, as almost every case requires a method adapted to its own peculiarities. After removing any loose spiculæ of bone and

foreign matters, put the patient in the most comfortable position with sufficient dressings to steady the limb and control muscular action, and take care of the general system. To persist in the methods of Liston, Desault, Physic or Smith, will often be to lose your patient in trying to give him a good limb. In the early stages extension and counter-extension can be borne in but few cases. The many-tailed bandage to quiet muscular contractions; a few strips of paste-board, cushions to keep the limb from rolling, perhaps a long side splint, these are all that can be used with advantage during the first month; after this, if the patient is in a proper condition, an apparatus may be applied more with a view to steadiness and straightness than with the hope of securing the required length of limb, as only the most moderate extension will be tolerated. Muscular action will almost always cause angular deformity, and there is no plan of treatment, that I know of, yet devised to overcome this difficulty. The flaccidity of the large muscles of the thigh by long continued pressure may be relieved by Smith's anterior splint, or some of its modifications, if not contra indicated by other considerations. When the bony union is sufficiently firm and suppuration not to profuse, the application of the starched bandage, nicely adjusted and fenestrated if necessary, will produce favorable results. When this has become firm, if the patient has sufficient strength, he may be given a pair of crutches, have the foot suspended in a sling and be allowed to go about. There is one more point in the treatment of these cases of which I wish to speak. For many months after such an injury as has been described, there will be fistulous openings and sinuses indicating the presence of dead bone, and if a probe is introduced it comes into contact with sequestra in almost all directions. What is the best course to pursue in such cases? I answer unhesitatingly, *let them alone.* Any explorative operation will, in a great majority of cases, lead the surgeon upon shoals and quicksands on which he or his patient will be surely wrecked. The new bony material is thrown out in such large quantities and is so intimately interlaced with the splintered shaft, that to attempt the removal of dead bone by forceps, saw, and gouge, will endanger the breaking up of all boney union and leave the patient in a worse condition than when he first fell; may render amputation imperative and

sacrifice the life of the patient. Mild, astringent and stimulating injections may be necessary to moderate the discharge and conduce to cleanliness, but no further local treatment is indicated. The general condition of the patient should be carefully watched and his vital resources husbanded. Pain should be quieted by opium, fever allayed by cooling drinks and saline mixtures, the body should be sponged with alcohol and water; the flagging energies of life stimulated and sustained. Where there is a lack of bony material in the system the phosphates of lime and soda may be used with decided advantage. The dangerous complications that arise are irritative fever, erysipelas, gangrene, pyæmia, exhaustive suppuration, secondary hemorrhage, etc. These are the lions in the way and unfortunately for the poor patient are ever unchained. The surgeon must stand as a wary sentinel to challenge all these enemies, to repel them with vigor, and if possible, put them to flight. The treatment of these complications opens too wide a field for present discussion. I will limit myself to a few words on that scourge of military hospitals, *hospital gangrene.*

The treatment of this disease has been made the subject of a monograph by Dr. Goldsmith of Louisville, Kentucky, in which he claims to be the author of the bromine treatment. This opinion was endorsed by Dr. Goldsmith's friends, Dr. Hammond, ex-Surgeon-General, and Dr. Wood, Assistant Surgeon-General, who recommended that the book and bromine should be added to the supply-table. I have no fault to find with the use of bromine as an adjuvant in this disease, but I do most decidedly objeet to an unfounded claim of pre-eminence and originality. As early as 1826 chloride of bromine entered largely into the composition of a salve or paste that was used as an escharotic in malignant ulcerations, and was brought into disrepute by the claims of quacks for the cure of cancer. Any one who will take the trouble to consult the Prussian Pharmacopœia will find that the idea thus given has been simply elaborated by Dr. Goldsmith. Moreover it is now quite generally conceded that bromine does *not* possess any specific influence over hospital gangrene, nor any special advantage over nitric acid or permaganate of potassa, and that it is the most painful of all escharotics. Hospital gangrene has long been recognized as a local disease, yet Dr. Goldsmith considers himself

"very bold," (I use his own language) when he claims this as a new doctrine. It is highly communicable from one patient to another by basons, sponges, the agency of insects, etc. The first indication for its treatment is the removal of the decaying animal tissue as rapidly as disintegration takes place so as to prevent the infection of the sound tissue beneath the diseased. When a stump is attacked after amputation or the disease attacks a wound of the extremities the tepid water douche is one of the most efficient and comfortable applications. A most simple and useful contrivance for its administration is a tin vessel with the spout inverted like an old fashioned watering-pot; to the water may be added a solution of chlorine, tincture of bark or any gentle stimulant or disinfectant. When the gangrene occupies the track of a deep and tortuous wound the frequent injection of such solutions will be highly beneficial. Should the disease continue to extend after removing thoroughly all accessible dead and sloughing tissue make a free and thorough application of some escharotic; strong nitric acid is about as convenient, and its results quite as satisfactory, as any I have seen employed.

In comparing the mortality from hospital gangrene in our own army and that of the English army in the Crimea, it is seneless to attribute to any one remedy a difference for which there were so many adequate causes. The English army was stationary; where they first pitched their tents there they were compelled to remain till the close of the siege. The army of the United States has been an army of moving columns. The English army was poorly supplied with shelter, commissary and quarter-master's stores through a long winter, in a proverbially unhealthy climate, without fuel, except the few roots they could dig after a day or a night in the trenches, through rain, cold and mud; their scanty meal was thus prepared by the *smoke* they could extract from the smouldering of wet roots. Camp diarrhœa, dysentery and scorbutus were their scourges, and the hospitals were filled with cases of gangrene. The sick and wounded of the English army were thus huddled together in illy ventilated and filthy transports, and sent to hospital across the Black Sea. It is no wonder that men subjected to such influences died of hospital gangrene. A summary of the treatment of hospital gangrene would be, 1st, the

observance of all hygienic laws; 2d, full stimulation and support of the vital forces; 3d, the local application of detergents and disinfectants; 4th, cauterization by nitric acid, permanganate of potassa, bromine or the actual cautery.

ART. II.—*Abstract of Proceedings of Buffalo Medical Association.*

TUESDAY EVENING, October 3d, 1865.

The Association met pursuant to adjournment, the President, Dr. Ring, in the chair. Present, Drs. Gay, Samo, Gould, Congar, Strong, Gleason, Little, Whitaker and Johnson.

DR. CONGAR presented the following paper:

Defective Power of Expression in a case of Hemiplegia of the right side.—Mrs. T. M. Y., aged forty-one years, has had eight conceptions in twenty years of married life. She has always been of a hemorrhagic temperament, which has obliged her accoucheur to give ergot before the termination of each labor, except the first two, for the purpose of securing the permanent contraction of the uterus. At the third month of the last pregnancy after a journey of leisure in a private conveyance of three or four days, on May 8th, she dined heartily; and about an hour after dinner was suddenly attacked with a most profuse uterine hemorrhage; in about thirty minutes she was completely blanched, very restless, fainting even in the horizontal position, at the wrist pulseless, and *completely hemiplegic on the right side*, although the ovum was at this time found to have been thrown off, and the hemorrhage itself to have ceased. The patient was now found to have lost nearly all ability of psychical expression. Speech, as a voluntary articulation of words for the intended expression of wants, desires, feelings, thoughts and ideas, was gone. She appeared to understand her condition, the efforts of her attendants, the language addressed to her, and spoken in her hearing, but could give no assent, no denial; could manifest uo psychical function whatever. That she wanted something, was known, by increased restlessness, turning the head on the pillow, by a gaze of the eye, by voice in the larynx, and the use of the left upper and lower extremities; but what the thing desired was, could only be learned by trying the supply of the

whole circle of bodily wants upon every such effort of hers. This complete loss of the power of expression lasted, however, but about twelve hours. The use of the right lower extremity was then regained. About twenty-four hours after this, slight power over the right upper extremity appeared, and occasionally a monosyllable could be articulated; assent and denial could be perceived; and some expression of feeling could be discovered; still the face was much drawn to the left side, and the tongue when protruded turned considerably leftward. From this time, day by day, the paralysis decreased gradually, and the recovery of the power of expression steadily increased. In the progress of recuperation it was interesting to observe how much sooner the ability to *articulate* was re-established, than the power of general expression to which it is normally subservient; that is, after every word could be distinctly pronounced one after another, very few could be used at will for the manifestation of wants, feelings, thoughts and ideas.

On July 8th, two months after the attack locomotion was as perfect as ever, and the arm had nearly regained its normal use, while the hand could not pick up from the table, from a chair, or from the floor, a knife, or a fork, or a pin, or a newspaper, or a book, or even an article of wearing apparel, while it could with a pretty firm hold grasp anything put into it, which could be clapsed by the fingers and thumb. While a normal look to the right side of the face, the power of expression, and its control over articulation, on first awaking from sleep, were invariably absent; yet soon afterwards, the face became straight and had a right look, the tongue on protrusion inclined to neither side, the power of expression became nearly perfect, and its controlling influence over vocal articulation in the manifestation of psychical function became so nearly normal as at times to make one forget momentarily the previous existence of paralysis.

It is proper here to remark that we are not aware of the existence at any time of the slightest anæsthesia, of the smallest diminution or modification of any department of the sensibility of the affected side, or, indeed, of any part of the body. Three months from the date of the attack, the patient was still improving, bnt not entirely recovered; for on first awaking from sleep, when fatigued, especially by anxiety of mind, and when constipa ted, the disease still showed itself distinctly.

Dr. Samo remarked that he attribnted the abortion to the journey, and the hemiplegia to the hemorrhage.

Dr. Strong had seen cases of paralysis produced by over-eating, or by eating unwholesome or indigestable food, and thinks that might have been the cause of the paralysis in the case presented by Dr. Congar.

Dr. Gay thought it might be a case of Bright's disease of the kidney.

Reports on prevailing diseases being called for typhoid fever, diarrhœa, dysentery and whooping-cough were reported as the prevailing diseases.

Miscellaneous business being in order Dr. J. J. Edmonds was proposed for membership by Dr. Congar.

There being no further business the Association adjourned.

T. M. Johnson, *Sec'y pro tem.*

ART. III.—*Clinical Remarks upon Surgical Cases in the Buffalo General Hospital—Varicose Veins—Exsection of the head of the Humerus.* By J. F. Miner, M. D.

Varicose Veins.—The first patient which I introduce to you is a relic of the Andersonville prison—that charnel-house—that Southern "Golgotha," which will forever stand as a blot of infamy and shame, only rendered deeper and more damnable by every attempt to conceal its guilt. His earnest and impartial recital of its horrors, united with half-suppressed emotions at the recollection of past sufferings and scenes of suffering, are sufficient to convince the most charitable, that at Andersonville, barbarity and inhumanity, reached a degree lower, than ever before known, among either men or devils. He was robbed and kept nine months, naked, without shelter, almost without food, often in the mud, suffering a hundred deaths himself, and seeing thousands of others die from want and disease. This history is so remarkable that I have thought it worthy a notice in connection with the operation we propose for the radical cure of varicose veins. It will serve to fasten in your recollections the fact that varicose veins are sometimes caused by hardships, exposures and fatigues; and it will also impress you with a just abhorrence and detestation of the inhuman brutes who could perpetrate such crimes.

I have for several years been in the habit of obliterating dilated veins, by injecting into them a solution of persulphate of iron; the manner of operating hardly requires a description. With a subcutaneous syringe, three drops of the solution, with about thirty of water, are injected into the main trunks of dilated or varicose veins; this may be done at different points. It produces an immediate coagulation of the blood, and thus the current is perfectly interrupted, the vessel commences to contract, and is soon only a mere cord, while the blood is obliged to circulate through the smaller and deeper vessels. It is the same in effect as ligating the vessel, an operation which is often resorted to with the same view. Obstruction is also sometimes obtained by placing over the dilated vessel a caustic issue; other modes of procedure have been practiced by surgeons and generally abandoned.

This plan of injecting solutions of iron into veins to coagulate the blood—of making internal obstruction of the circulation, and thus causing obliteration, is comparatively a new method of curing varicose veins. It has been repeatedly illustrated before the different classes, for the past few years, that this manner of procedure is safe and successful—safe, so far as any dangerous inflammation of veins is concerned, and perfectly successful in obstructing the current of blood and curing any varicose ulcers which may be present. It has been attempted by some excellent surgeons and condemned, because of the liability to induce extensive ulcers, the solution being thrown into the cellular tissue, around the vessel, or by danger of inflammation of the veins; the possibility also of not obstructing the circulation has been urged as an objection.

With no desire to induce others to adopt this plan, who think any other better, it is yet proper for me to say, that if the operation is made as shown to you—if the vessel is opened down upon with careful touches of the scalpel, until its blue walls are plainly exposed, the point of the syringe carefully introduced into the vessel, and no where else, and if the solution is reduced, and not used stronger than one drop of solution of persulphate to ten drops of water, not one of the objections urged against this operation can be sustained; in other words, the operator is in fault, while the plan itself is believed to be unsurpassed in excellence—practiced properly, it is invariably successful and satisfactory. I

have before described to some of you this operation, and perhaps spoken less positively than now of its merits; abundant experience has convinced me that it is an operation which can certainly be made with success and safety.*

Exsection of the Head of the Humerus.—Patrick K——, aged 55, healthy until the last two years, during which time he has suffered from pain, tumefaction and discharge of pus from the orifices you observe, which lead to the bone, but through which I have been unable to determine the exact nature on seat of disease; without exploratory incision it is impossible to decide the condition of the joint surfaces, or that this pus comes from inflammation and ulceration here, or is the result of caries or necrosis of the bone below the articulating surface. The patient has suffered great pain; has become pale and anæmic, and there is a presumption that the joint is diseased.

With the view of positively deciding if the shaft is the seat of disease, before opening the joint, an exploratory incision is made. By this means we have determined the lesion, we can now trace the disease to the articulating surfaces of the joint, and therefore proceed as proposed, to exsect the head of the humerus, with about three inches of the shaft, thus removing the entire disease of the bone.

Formerly such an operation would not be proposed, but instead, amputation at the shoulder-joint. If this operation then should prove successful in removing the disease, and still leaving the arm in any degree useful, it is certainly a great advance, in conservative surgery. To show what may sometimes be gained in this way, over amputation, I might remind you of a similar case which some will recollect, where the patient obtained a good arm and pursued his trade as a mechanic with acceptance. It is possible then, in favorable cases, to preserve a useful arm, by what has been called conservatism—by making exsection rather than amputation.

You have observed the pale, anæmic, unhealthy countenance of this patient, and you will perhaps ask if it has been induced by the discharge. Our patient has suffered from this diseese of the joint for two years, and from this ulceration of bone has escaped a

* This patient left the Hospital twenty days after the operation, perfectly relieved of both varicose veins and ulcers, which had resisted treatment for six months under the care of an experienced surgeon. This result is mentioned with the view to place the fact on record, hoping to contribute additional evidence in favor of this operation.

great amount of pus. The pain, loss of appetite, loss of sleep, and other causes have aided in producing the debility, but it is not certain that the pus secreted contributed much to the result, the other causes if present in equal degree, unaccompanied by pus formation, would have proved sufficient; but it is not easy to determine the influence of the different causes separately considered. One other question it would also be interesting to consider, viz: What was the cause of the disease? did it arise from general or constitutional bias, or was it induced by injury or other local causes? He knows of no local injury, and believes that it "came of itself," though we are not positive that he did not suffer injury possibly so slight and so long previous to manifest disease that it had escaped all recollection, yet had influence in inducing the disease; however this might have been, it is difficult to altogether exclude the belief in constitutional bias. If it was traumatic in this case, it does not follow that such disease is always induced by local or external causes; it is safer, to be slow in adopting as our own, any of the various theories which have been proposed.

ART. IV.—*Abstract of Proceedings of Medical Society of South-Western New York.*

The Annual Meeting was held at Erie, November 8th. Officers elected for ensuing year:

President—Dr. C. K. Irwin, Dunkirk.

Vice President—Dr. D. D. Loop, North East.

Secretary—Dr. L. G. Hall, Dunkirk.

Executive Committee—Dr. H. W. Barrett, Dr. A. Boyd, Dr. J. H. Rathbone.

Delegates to National Medical Society—Dr. Wm. M. Wallace, of Erie; Dr. Thomas D. Strong, of Westfield.

Dr. Irwin, of Dunkirk, read the following paper upon the use of "Acetate of Lead in Uterine Hemorrhage, in heroic doses:"

Hemorrhage after parturition is perhaps one of the most frequent accidents of an alarming nature that the young practitioner may meet with, and no other, will cause more frequent anxious moments to the man of experience. All may have gone well with the labor, the child and placenta nicely delivered, the patient

well bandaged, and the accoucher congratulate himself that he is through with the case finely, when a hurried whisper from the experienced mother or nurse reaches his ear, "Doctor she is flowing badly," starts him suddenly to his feet, and hurries him to the bed-side, with as bland and confident look as his excited nerves will permit On examination it may be that the alarm was needless, that merely a contraction of the uterus had caused an expulsion of blood in such quantity as to cause the alarm. On the other hand it may be one of those trying cases where the sanguinous fluids of the body are rapidly making their exit from this newly formed lesion, in such rapid torrents that unless speedily arrested vitality cannot be long sustained, no time is to be lost; cold is rapidly applied to the surface of the abdomen by the douche, or with napkins, also to the vialva, or perhaps the tampon is applied, the position of the patient changed, the head lowered, etc., but still the hemorrhage progresses; the symptoms are becoming more and more alarming, the patient's countenance is becoming anxious, the breathing labored and hurried, the cheeks blowing, the arms thrown wildly about, calls are made on the attendants for water and air; wants to be raised in the bed, fanned, etc.; a little stimulant is perhaps given, ammonia applied, etc. How is our poor Esculapius feeling during this trying scene of trouble? If he is of a timid nature he has probably suggested to the friends that they had better send for council, or the friends may have suggested as much to him, be that as it may, most cases you will admit will no doubt come out well with the course alluded to, with perhaps the addition of a properly adjusted pad or bandage, and a long period of confinement and rest sufficient to allow the vital fluid to again recuperate.

Cases, you know, Mr. President, do occur in which all the ordinary means I have alluded to, and many others, are employed, and still avail nothing; the patient rapidly sinks. Recently a branch of my own family suffered in the way indicated, when by the proper application of the means I am about to describe I have every confidence that a loving mother would have been spared to her household.

The remedy I propose is *acetate of lead.* "Oh, is that all? We

have all used that in hemorrhage." No doubt, gentlemen, you have, but in what doses?—one, two or three grains, perhaps. Now I am about to propose to give it in doses of as many drams, and as little danger from its use as you will meet with in your two or three grain doses, and at the same time control the hemorrhage, completely, in an instant.

This treatment of cases of uterine hemorrhage, is no experiment of mine, but is the teachings of one of the best practical accouchers in this country. Dr. Joseph Workman, Professor of Obstetrics in Victoria College, taught this method to his class many years ago; but few, I believe, have ever had the courage to venture its use; yet those who have, are loud in praise of its good works.

In teaching the use of this remedy to his class, Dr. Workman did not attempt to explain its physiological action, but only its medicinal effects, which are those of a *direct emetic*, and an immediate powerful contraction of the uterus, thereby closing the mouths of the bleeding vessels. The belief of the Doctor is, that it exerts a powerful influence on the lymphatic nervous center, from which you know the uterus is so freely supplied.

You may look on this course of treatment as one which is dangerous to pursue, as the dose indicated is not warranted by the materia medica of the present day, but pronounced poisonous and dangerous.

A few years ago olium terebinth, iodide potassium, quinine, and a host of other remedies were laid down in the books as unsafe, in quantities such as are now freely and safely given every day. Can any of you describe the physiological effect of cinchonia or quinine in intermittent fever? Probably not, and yet I doubt if any of you would object to their use in such cases; neither would you hesitate to give an ounce of oleum terebinth to expel the linea solium, yet we owe the credit of this last experiment to the ignorant sailor who risked his life in this way to relieve himself of the miseries caused by a tape worm.

Having always used the acetate of lead in my practice in doses of from one to three drams, without having lost a patient by hemorrhage from the uterus, I feel it my duty to explain and defend its use, believing that a remedy of such utility should not be con-

fined to the practice of a few only. It is not necessary to confine its use to cases of full period, or where the placenta has been delivered, as its action will be to cause immediate expulsion of the contents of the uterus, and I would use it, in case of violent hemorrhage from polypus, hydatids, abortions, retention of placenta, or almost any case requiring prompt and heroic action for the suppression of uterine hemorrhage, except in cases of placenta previa.

I therefore, recommend to my colleagues the use of this remedy in cases of uterine hemorrhage from whatever cause, (save placenta previa,) where prompt action and potent remedies are indicated. I am satisfied its administration is as free from danger as that of a dose of ergot tea. The most convenient mode of administration is by putting a teaspoonful or more of the crystals of acetate of lead in a cup of plain tea, and adding thereto a tablespoonful of vinegar to insure against its being a diacetate or carbonate, either of which might not answer the purpose of the acetate. A dose of ipecac might safely be held in readiness in case vomiting was not speedily produced by the lead, but I have never had to resort to such means, as the lead has always acted, most promptly.

Dr. Wallace had been in the habit of using scruple dos with good effect, not producing emesis.

Dr. Strong had tried Dr. Irwin's treatment in one case of abortion at three months, with retained placenta and active hemorrhage. A teaspoonful of lead was given in tea, with a little vinegar added. The taking of the lead, emesis and the expulsion of the placenta were almost instantaneous, thus terminating the flowing.

Neither Dr. Irwin or Dr. Wallace had seen any ill effects from the lead.

At request of Dr. Wallace, Dr. Bennett reported his experience in the use of Fowler's Solution in typho-malarial fever. Dr. Bennett was accustomed to use freely in the army, ten drops three times daily; did not hesitate to use it if stomach did not rebel, or puffiness appear under the eyes. Was much pleased with its effect.

Drs. Loop and Irwin coincided with him in regarding it as a valuable agent. Dr. Irwin said that he had frequently obtained

satisfactory results from it, in intermittents, when quinine had failed.

Dr. Hazeltine reported a great prevalence of icterus, not attended with fever, in south part of the county.

Dr. Loop reports the same at North East. Did not require much treatment. Thos. D. Strong, *Sec'y pro tem.*

Westfield, Nov. 13, 1865.

Miscellaneous.

On the Surgical Treatment of Painful Menstruation.

To the Editor of The Lancet:

Sir—Please allow me to say a few words in answer to the communication of my friend, Dr. Bennet, published in The Lancet, (September No. page 425), "On the Surgical Treatment of Painful Menstruation."

If I have had any misgivings as to the worth of my "clinical notes," they may now be considered at an end. For when so many eminent men step out of the beaten track to discuss their soundness it is almost a guarantee that there is truth at the bottom, the whole of which they cannot at once accept because it does not tally with old preconceived notions.

I am ready to acknowledge my obligations and the debt of gratitude I owe to Dr. Bennet as the father of a correct uterine pathology. In my own country he is *par excellence* the author that we all follow; and his excellent book (like those of Fergusson, Coulson, and Druitt) is found in the library of every well-read medical man. But while we except Dr. Bennet as a light and a guide, we are independant enough *non jurare in verbi magistri*, and we question in many things the soundness of his teachings, and in nothing more than on this very subject of dysmenorrhœa.

My friend thinks that he settled this question many years ago; but I shall be greatly surprised if it is definitely settled in the next generation. The fact is that the pathology of dysmenorrhœa is yet to be written. It is simply a sign or sympton of disease the result of organic change. That organic change may be inflammation, or

it may exist independently of it. But whether inflammatory or not, its action is mechanical. I lay it down as an axiom, that there can be no dysmenorrhœa, properly speaking, if the canal of the neck of the womb be straight and large enough to permit the easy passage of the menstrual blood. In other words, that there must be some mechanical obstacle to the egress of the flow at some point between the os internum and the os externum, or throughout the whole cervical canal.

Dr. Bennet says "I have always taught that menstruation may be painful, even acutely painful, from its dawn to its close, without any mischief or impediment existing of any kind whatever." Many years ago I believed all this, simply because Dr. Bennet said so; but now I do not believe in any such doctrine because a large experience has disproved it in every particular. There is no such thing as what Dr. Bennet calls "constitutional dysmenorrhœa." There was a time when we looked upon dropsy as an entity, a disease in itself; but now we know that it is only a symptom of various diseases. It is a sympton of disease of the heart, of the kidneys, of the liver, of the spleen; or it may follow hæmorrhages diarrhœa, &c. So is it with dysmenorrhœa: it is only a symptom of real disease. It may be inflammation of the cervical mucous membrane; retroflection; anteflection; fibroid tumour in one wall of the uterus or the other; contraction of the os internum or os externum; flexures of the canal of the cervix; either acute or gently curved, either at the os internum, at the insertion of the vagina, or extending throughout the whole length of the canal; all of which are but so many mechanical causes of obstructions, which must be recognized and remedied if we expect to cure the dysmenorrhœa. We do not talk of constitutional toothache, of constitutional colic, or of constitutional fractures, or constitutional dislocations; nor should we speak of constitutional dysmenorrhœa. This is but a high-sounding term that means absolutely nothing. The fact is that most of the diseases of the uterus are as purely surgical as are those of the eye, and require the same nice discrimination of the true surgeon; and if we fail to detect the abnormal condition that produces diseased manifestations, whether of sensation or secretion, it is plainly our fault. For all organs the uterus is now most subservient to the laws of physical exploration; and in every case of

diseased action, if we cannot map out accurately the pecular condition of the uterus or accompanying it, it is simply because we do not apply our knowledge of those physical laws to its investigation.

But while Dr. Bennet theoretically opposes so strenuously the "mechanical theory of dysmenorrhœa," he acknowledges it in fact, for he says that "dysmenorrhœa showing itself in women who have not had it before, or aggravated when constitutionally present, is, I firmly believe, very much more frequently the result of morbid conditions, of chronic inflammations of the cervix and of the body of the uterus, than of physical obstruction in the cervical canal. When that *obstruction or contraction* exists, it is usually the mere result of the swelling of chronically inflamed or hypertrophied tissues, and disappears without any operation when the inflammation has been removed," &c.

There is no difference of opinion between us here. I have seen just eight cases of this type out of 129 cases dysmenorrhœa.

Again he says: "If very severe, so much so as to cast a gloom over life, either in unmarried or in married women, it is usually connected with inflammatory disease of the uterus, which is also generally the cause of *the narrowing of the cervical canal.*" He very properly tells us to treat this inflammation, and as itsubsides, "generally speaking the cervical passages open, and a natural cure is produced. If they do not thus open, dilatation really becomes necessary, and should be carried out one way or another."

This is at once yielding practically to the whole "mechanical theory of dysmenorrhœa." He acknowledges this "mechanical theory" throughout his entire article, for he advocates the use of sponge-tents in all cases in which he does not recognise a narrowing of the cervical canal by the turgescence of the inflamed mucous membrane. Why should he resort to spong-tents if there in no mechanical barries to overcome? He gives numerous cases illustrating this mechanical treatment, yet he opposes a "mechanical theory."

It seems that Dr. Bennet has for the last twenty years been overcoming mechanical obstructions in the cervix, at one time by Simpson's metrotome and intra-uterine pessaries, with which he "obtained good and permanent results;" but subsequently by spongetents.

The only difference between us, seems to be that he opposes the theory of mechanical dysmenorrhœa, but adapts his practice to it, while I permit theory and practice to go hand in hand.

But the real object of the Doctor's paper seems to have been to object to my method of enlarging the os uteri. He talks of "bifurcation" "of slashing operations," "the more severe and serious operations," &c. He seems to have created a windmill out of my operations, and started off to demolish it. But this operation is "not slashing," indeed it is the only one proposed that is not "slashing." It is a simple snip on each side of the os, with a subsequent superficial incision on each side of cervical canal, made with great caution, and which I demonstrated before the Obstetrical Society of London at a recent meeting, showing wherein it was more precise, more surgical, and less apt to be followed by accident than any other operation of the same nature, and that while the incision of the os tincæ was about the same as by Dr. Greenhalgh's metrotome the cutting internally was less. It is not by any means a painful operation. Dr. Bennet has not seen it performed, and draws on his imagination as to its terrors. I well remember how I held my breath in awful suspense when I first read the account of the passage of a freighted train of cars over the suspension bridge at Niagara falls; but when I visited the place six months afterwards, and passed over it in person, I had not the slightest feeling of dread. This was due to the difference between imagination and reality.

I am, Sir, your obedient servant,

J. Marion Sims, M. D.

Bolton-row, May-fair, July, 1865.

Influence of Uterine Displacements on the Sterile Condition.

Dr. J. Marion Sims, at the late meeting of the British Medical Association, said that we were all interested in the subject of sterility, when we remember the fact that every eighth marriage was sterile. He did not propose then to give us a complete paper on the subject, but only to present it in one of its relations, viz., that of its dependence upon misplacements of the uterus. He divided his sterile patients into two classes: 1st. Those who were married a

sufficient length of time and did not conceive; 2d. Those who had borne children, but for some reason ceased to do so long before the termination of the child-bearing period. The first he called "natural sterility." the second, "acquired sterility."

To show the frequency of uterine displacements in this relation, he said that of 250 cases of "natural sterility" that had fallen under his observation, 103 had anteversion, and 68 retroversion; and of 255 cases of "acquired sterility, 61 had anterversion, and 111 retroversion, the anteversions predominating in the first class, the retroversions in the second, the two opposite displacements being almost in inverse proportion in the two classes and forming about two thirds of the whole number, being 343 out of 505 cases; which proved beyond question the bearing and importance of these displacements in connection with the sterile condition. He then illustrated by diagrams the normal position and relations of the uterus, explained the various causes and complications of anteversion, whether dependant upon fibroid tumors, elongation of the infra or supra-vaginal cervix, shortening of the utero-sacral ligaments, or hypertrophy of the fundus. In all these cases, he said, we could not do much for the relief of the sterile condition by merely mechanical means; that our efforts should be directed to seeing that the os tincæ was properly open, that the canal of the cervix was free from engorgement, and that the secretions, both vaginal and cervical, were not poisonous to the spermatzoa. He said that there was one form of anteversion that was easily cured by a simple and novel operation, which he originated some eight or nine years ago. He illustrated this by cases and diagrams. It was as follows: The uterus lies down on the anterior wall of the vagina, and parallel with it. The fundus is most usually the seat of a fibroid growing anteriorly. The anterior wall of the vagina is greatly elongated, the os tincæ pointing directly backwards. Under these circumstances he has shortened the anterior wall of the vagina an inch and a half, by denuding the surface a half inch wide and two inches long across the axis of the vagina in juxtaposition with the cervix uteri, and making a similar transverse scarification parallel with the first, about an inch and a half, more or less anteriorly to it and then united these two transverse cut surfaces by silver sutures, just as we would unite the edges of a transverse vesico-vaginal

fistula by them. This necessarily shortens the elongated anterior wall of the vagina, draws the cervix forwards into its normal relations, and as a consequence elevates the fundus. He related several successful cases of this operation, and had seen it followed by conception and child-bearing. He then passed to the consideration of retrovertion as influencing the sterile condition, pointed out its varieties and anomalies, and showed how it was to be diagnosed and how replaced. By diagrams, he illustrated various modes of reduction, showed how conception was difficult, and sometimes impossible, in some forms of retroversion, advocated mechanical treatment, pointed out the danger of pessaries, but advocated their use when judiciously applied under proper circumstances. He prefers a malleable ring, either of block tin or a ring of copper wire covered with gutta percha, and then bent or curved to the proper diameters of the vagina of each patient. He said this was a modification of Hodge's pessary. Under some circumstances he also uses Meigs's ring pessary, made of watch-spring covered with gutta percha. He pointed out the peculiar advantages of each of these, and paid a just tribute to his countrymen, Drs. Hodge and Meigs, who were the earliest advocates of the mechanical treatment of uterine displacements. He said that the great secret of treating the sterile condition when dependent upon retroversion was to adjust a malleable ring which would hold the uterus in its normal position, and which was to be worn always during the act of coition. He explained its philosophy, its safety, and its harmlessness, and related a great many cases in which its use has been followed by conception: one after a sterile marriage of six years, another of ten years, another of fifteen years, and others at various periods of time after sterile marriages. He also showed how miscarriages, often dependent upon this displacement, are prevented by the use of a properly fitted malleable pessary. He then pointed out the course to be adopted when it was impossible for the patient to wear a pessary, showing why it was so, and what was to be done.—*Med. Times and Gazette.*, Aug. 19, 1865.—*Cincinnati Lancet & Observer.*

Typhoid Fever in Pigs.—Dr. W. Budd states that typhoid fever has destroyed 10,000 to 15,000 pigs in the south-west of England during the last eighteen months.

On Certain Forms of Heart Disease, and their Liability to Terminate in Sudden Death.

BY A. T. H. WATERS, M. D.

The disease of the heart which is most liable to terminate in sudden death is, undoubtedly, fatty degeneration of its muscular fibre. It is unnecessary to refer to statistics to prove this statement; the experience of most practitioners will confirm it. When fatty disease attacks the muscular substance of the heart, there is a gradual obliteration of its contractile element, and a gradual diminution of its contractile power. To such an extent does this sometimes take place, that, on making an examination of the tissue of the heart, we find but little evidence of its muscular nature; and we are surprised, not that death has occurred, but that life has been so prolonged. Death not unfrequently takes place suddenly in this disease without the previous occurrence of any well-marked symptom, such as to arrest the attention of the patient and warn him of his dangerous malady; and although it is probable that, in all such cases, a careful examination would reveal evidence of enfeebled heart, or of certain reflex phenomena, slight, but important in a diagnostic point of view, yet the absence of prominent features—such, for instance, as usually characterize the progress of valvular disease of the heart and of certain affections of its muscular walls—often leads the sufferer to imagine that no serious malady exists. And it is a circumstance of no little interest and importance that even when fatty degeneration of the heart is far advanced we occasionally find the pulse moderately full. I have known instances where this condition of pulse has misled as to the nature of the disease.

But beyond this question of the great liability of fatty disease of the heart to terminate in sudden death, there are some further points in relation to sudden death from valvular disease of great practical importance. Among these are—1st, *the probabilities of sudden death in valvular disease;* and, 2d, *the particular form of valvular disease most liable to terminate in sudden death.*

In regard to the first point, I think it may be safely affirmed that, speaking generally, the proportion of cases of valvular disease terminating in sudden death is very small. In the large majority of cases death results slowly, from the secondary consequen-

ces of the affection, dropsy or some other diseased condition. Dr. Barclay has recorded a series of seventy-nine fatal cases of valvular disease which occurred in St. George's Hospital. Two only of the deaths are mentioned as having been sudden. This proportion of sudden deaths is very small, and perhaps must not be taken as the usual one. My own experience certainly gives a larger proportion.

In relation to the second point, the particular form of valvular disease most likely to terminate in sudden death, I am not aware that any statistical tables exist which would tend to determine the question. It would be a matter of great moment, considering the strong impression which prevails amongst the public of the great liability to sudden death in heart disease, if we could arrive at any precise conclusions in regard to this subject—if, in fact, we could by the examination of a large number of cases deduce a rule of probability applicable to these valvular diseases. The experience of a single individual, unless extraordinarily large, would scarcely serve for any definite conclusions; but if a number of practitioners were to direct their attention to this particular point, the most valuable statistics might be obtained. Dr. Walshe, in the last edition of his work on Diseases of the Heart, has entered somewhat into this question, and he states that, according to his experience, the form of valvular disease most liable to terminate in sudden death is uncomplicated aortic regurgitation. On the other hand, Dr. Stokes is of opinion that mitral regurgitant disease is most liable to fatal syncope.

Theoretical considerations lead me to the conclusion that, of the two forms of disease just mentioned, mitral regurgitation is more liable to terminate in sudden death than aortic regurgitation. In the latter affection the dilatation and hypertrophy of the left ventricle are especially salutary. If the disease is chronic, the ventricle gradually adapts itself to its altered requirements, and, for a time, but few symptoms sufficiently severe to attract the attention of the patient may result. In consequence of its dilatation and hypertrophy, the ventricle is able both to hold a larger quantity of blood than in health, and to contract with greater power, so as to throw all its contents into the aorta. The arterial tubes thus become well filled by each ventricular systole—in fact, they receive

more blood than when the heart is in a normal condition; but in consequence of the imperfect closure of the semilunar valves they lose a portion of this blood, and hence the sudden collapse of the arteries after their diastole, which gives so peculiar a character to the pulse in aortic regurgitant disease. Now, as the structures of the body get well supplied with blood *so long as the ventricle retains its vigor*, there is, speaking comparatively, but little element of syncope and sudden death. On the other hand, when the mitral valve is diseased, so as to allow of regurgitation, a portion of the blood which ought to go to fill the arteries passes back into the left auricle. Hence these cases are characterized by a small pulse—a pulse of little volume. If the amount of regurgitation is large, the quantity of blood passing into the systemic vessels will necessarily be small. Here we have the element of syncope; and, as the result of an unusually feeble contraction of the ventricle, or some embarrassment to its action, sudden death may ensue.—Whether such embarrassment is more likely to take place in mitral than in aortic regurgitation is a subject for careful study and observation.

On looking over the cases of sudden death amongst my own patients, I find that I have had about an equal proportion of deaths from the two forms of disease to which I have referred, and consequently my own experience tends neither to confirm nor to contradict the opinion I have expressed on theoretical grounds. The question is one especially for statistics, and it is chiefly with the view of eliciting facts, and the opinions of those who have had a larger experience than I have, that I have brought the subject forward.

My own belief is, that it is a very rare thing for valvular disease to produce sudden death, unless the muscular substance of the heart has undergone a weakening, or a degeneration of its fibre. As long as the muscle retains its vigor, the grand cause of syncope is wanting. In all cases of sudden death from heart disease in which I have made a post-mortem examination, I have found fatty degeneration of the muscular fibre to a greater or less extent. The recognition of this fact is of great importance, as it points out the line of practice that should be adopted in the management of all cases of valvular disease.—*Lancet.*

Liverpool, September, 1865.

Cholera—How to Mitigate it.

At the first meeting of the *American Association for the Promotion of Social Science*, held in Boston on the 4th of October, Dr. H. G. Clark read a paper from which the following extract is taken:

"Of all other plagues, cholera has taken the widest geographical and climatic ranges. It has visited at all seasons all quarters of the globe, and has in the most extraordinary manner overleaped all ordinary bounds. It has spread without regard to quarantine laws or cordons, touching emigrant ships in mid-ocean a thousand miles apart and landing with them at their ports of destination. Its first visitation to this country was in 1837, when it prevailed to a moderate extent. In the month of September, 1832, the disease disappeared, but revisited us with renewed violence in the winter of 1848 and the summer of 1849. It first manifested itself at Staten Island, on the 2d of December, and nine days later at New Orleans. From these two commercial centres it spread over the whole country. The epidemic was not general till about the first day of May, and and had terminated by the last of November, having destroyed in the large towns (which only were reported) thirty thousand persons. An epidemic of very moderate intensity occured in 1853—about one-tenth that of 1849.

"The epidemic now prevailing in Europe has spread much more rapidly than has been its wont, while the mortality has been fearful. In Lower Egypt, 80,000 have died. So far only, a few sporadic cases have occurred in this country, but its arrival, judging from the past, is only a question of time. To the measures necessary to be adopted, if we wish to escape from, or to diminish the intensity of the expected attack, there are two parties. First, the various boards of health, their constitutional advisers and their executive officers. Second, the masses of the people, especially those of the laboring classes. The co-operation of both these classes is indispensable. By intelligent combined action all epidemic diseases, especially cholera, can be very much, controlled, and their ravages stayed. On the important point of how this is to be accomplished, Dr. Clark made the following important suggestions:—

"Shall we, as some distinguished civilians and others have proposed, establish a rigid quarantine? Shall we exclude all vessels

and persons and goods from the Mediterranean from our ports? Shall we obstruct the course of trade in its accustomed channels by land and sea? No—a thousand times, no! If this were possible—if all these and more were possible—how could it avail to arrest the march of a pestilence that walketh in darkness, and that springs out of the earth by intangible but noxious exhalations which are wafted to us without any known agencies, on the wings of the wind, over continents and oceans?

"But above all, when we consider the now established and well-proven fact, that colera is neither contagious nor infectious, how doubly absurd do quarantines appear? Let us therefore dismiss all our fears on this point, relieve ourselves and the authorities from the annoyances and evils incident to a rigorous quarantine, and apply ourselves to the only available but powerful and sufficient remedy to be found in the proper use and application of intelligently directed sanitary measures, and to energetic administration, by the boards of health, under the advice of their medical officers, of all the provisions of sanitary law. These duties comprise, in a great city, all the departments usually comprised under the titles of external and internal health, and imply attention to the following points, viz:—1, sanitory survey; 2, general cleaning operations; 3, sewerage; 4, *abattoirs* (slaughter houses) and markets; 5, dram shops and drinking-houses; 6, lodging-houses, cellar habitations, tenement-houses, streets and construction of houses, water-supply, ventilation, vaccination, public baths, and interment of the dead, and special care in cases of the presence of epidemic and contagious diseases.

"The subject of dram shops and drinking-houses it may be thought is improperly introduced, but when we all know that, in addition to the pernicious effects of intemperance, the first and most numerous victims to epidemics are the intemperate, it will appear otherwise. Indeed, if, instead of treating and hopelessly attempting to cure and arrest intemperance and dram-selling as crimes and civil offences, and amenable only to civil, criminal, or moral laws, we would treat the first as a disease and the second as a nuisance, and dangerous to the public health, and to be abated as such, we should I am sure, have entered upon the right track; for, instead of the prejudices of the people being excited against a sumptuary law,

we should, in favor of a sanitary measure, have their entire sympathy and support.

"The duties of the people themselves may be summed up in short to be:—1. To lay aside all unnecessary fears, and to feel that danger looked full in the face will either be diminished or disappear; 2d. To practice personal and houshold cleanliness; 3. To see that their cellars, drains, and other premises are clean and in order; 4. To avoid over-crowding and to attend to ventilation; 5. To avoid intemperance and the habitual use of spirituous drinks; 6. To avoid all decayed or unripe fruit"—*Boston Med., and Surg. Journal.*

On the Treatment of Croup by the Inhalation of Lime-Water.

M. Kuchenmeister, of Dresden, has stated that diphtheritic membranes are rapidly dissolved in lime-water; and this statement has been confirmed by M. Biermer, the Professor of Clinical Medicine in the University of Berne, who has repeated the experiment before the students of his class.

The *Brit. For. Med. Chir. Review* says that some pseudo-membraneous exudations, of considerable extent and thickness, were placed in a small glass of lime-water, and in the space of from ten to fifteen minutes, and before the eyes of the students, they disappeared, leaving only a very slight sediment at the bottom of the glass. M. Biermer was therefore induced to apply the lime-water locally in a living patient, and he has published the results, which were quite satisfactory. The patient was a girl, aged seventeen, admitted into the hospital of Berne for croup, which has lasted four days. When she was admitted, she was nearly choked, cyanotic, and insensible, and she threw up portions of membrane only by means of the administration of some very strong irritant medicines. The symptoms of laryngeal constriction still continued, together with distressing dyspnœa; and pulverized water was employed to moisten the respiratory passages. The water employed, which was at first hot, and then boiling, produced considerable amelioration; and M. Biermer, having previously tried the experiment mentioned above with the false membrane and lime-water, supplied the pulverizer with lime-water. The improvement was

evident as soon as the inhalations were commenced; the expectoration changed its character, and became purulent; the cough gradually disappeared, and the fever abated; and only hoarseness and a slight cough remained during the convalescence, which terminated in a complete cure. M. Biermer and all those who watched the progress of the case, were convinced that the inhalations had a solvent effect upon the false membranes; but the professor does not recommend an exclusive adoption of this local treatment, which softens and detaches the exudations, but does not reach the cause of the disease, which must be combated by constitutional remedies, calomel being considered the chief. The plan of M. Biermer has been followed by other practitioners; and M. Kuchenmeister has published a case of diphtheritic pharyngo-laryngitis in a child of three years and a half old, treated in the same manner with complete success. Dr. Brauser, of Ratisbon, has also lately published a case of croup in a child of four years and a half old, treated in the same manner, and perfectly cured. M. Biermer insists particularly on the necessity of using the injections hot.

New Method of Disinfecting and Deodorising.

At the recent meeting of the British Medical Association, Dr. Richardson explained a process he had adopted for applying the atomiser for the purpose of deodorisation. He made a mixture by adding iodine to solution of peroxide of hydrogen until saturation occurred, and afterwards concentrated sea-salt in proportion of 2½ per cent. In this combination a water was produced like sea-water, and which was rendered active by being charged with free iodine and ozone. The solution placed in one of Krohne's hand antomisers could be diffused in the finest state of distribution at the rate of two fluid ounces in a quarter of an hour; but in an ordinary bed-room or sitting-room one ounce was sufficient to render the air so active that ozone test-papers were discolored by it to the highest degree of Moffat's scale in from five to ten minutes. For charging the sick room rapidly and effectually with active air—in a word, with sea-air—Dr. Richardson said this plan was by far the most effective of any he had known. A nurse could put the apparatus into action at once, and could deodorize hour by hour, according to the directions of the medical practitioner.—*Druggist.*

New Lectureships in the University of Pennsylvania.

The following statement in reference to this liberal act of Dr. Wood is taken from the *Medical and Surgical Reporter* of July 8th, 1865:

"Publicity having been given to the proposed endowment of Lectureships in the Medical Department of the University of Pennsylvania, we will state the facts as briefly as possible, so far as they have transpired.

"The Trustees of the University of Pennsylvania, through the liberality of the distinguished Emeritus Professor of the Theory and Practice of Medicine in that institution, Dr. George B. Wood, as we are informed, have devoted the sum of $50,000 to the endowment of lectureships in the University on the following subjects: 1. Zoology and Comparative Anatomy; 2. Botany; 3. Mineralogy and Geology; 4. Hygiene; 5. Medical Jurisprudence, including Toxicology. We have heard the names of competent gentlemen mentioned in connection with each of the chairs, but do not as yet feel authorized to give publicity to them. The appointments will be made in November next, and the first course of lectures will be given the ensuing spring. Each lecturer is to receive a salary of $500 from the fund, and also all fees that may accrue from the sale of tickets, the fee not to exceed $10, and regular matriculants and alumni to be admitted free.

"This liberal action of Dr. Wood is entirely in keeping with his well-known views on the subject of medical progress. He has always been a friend of thorough education, and when a teacher and professor, always insisted on a close application to his studies on the part of the student, and a proper qualification for the discharge of the responsible duties of the physician on the part of the graduate.

"In no better way could he have shown his love of, and confidence in, the science of medicine, and his attachment to his Alma Mater, the venerable University of Pennsylvania, than in the establishment of these lectureships. The devotion of a well-earned fortune to so high, honorable and ennobling a purpose as the advancement of medical education, would serve to immortalize the name of this distinguished friend of medical progress, even if he had done nothing more to secure to him so eminent a position." *American Journal of Pharmacy.—Boston Medical Journal.*

Editorial Department.

Asiatic Cholera---Precautionary Measures in Buffalo.

Since our last issue, a very well prepared report upon the dangers of cholera again visiting our city, and the proper means for mitigating its severity, was received by the Board of Health, from the Health Physician, Dr. Sandford Eastman; and we understand that vigorous measures are being adopted, for a general, thorough examination of the whole city, and a systematic removal of all causes and sources of disease which are found in operation within the city itself, as well as careful preparation for the appearance of any epidemic which may be feared from abroad. We hope this duty will be entrusted to vigorous hands, and that the work will be thoroughly done, that every nook and corner of the city will be washed and kept hereafter in cleanly condition. If this work is properly done, though it may not prevent cases of cholera appearing in Buffalo, yet we believe it will be the means of preventing such disease from becoming a general epidemic. There is one other immense nuisance, vastly greater and more to be dreaded than the open cess-pools, drains and vaults which are so great sources of disease. The observation of many authors, goes to show that beer and whisky drinking is *the most fruitful source* of cholera—that during an epidemic of this disease, this habit determines perhaps more than any other, who shall be the victims; those poor, unfortunate subjects of intemperance become the easy and natural prey of epidemic disease.

This fact should be placed before the public, that all may understand how that they must not only, not eat improper food, but also must not drink to intoxication. The history of the last epidemic of cholera shows in some cities, that many of those who drank freely Saturday and Sunday evenings (a common habit) died early Monday morning.

It might also be well to assure the public that though no hygienic conditions could insure absolute immunity from such disease during its epidemic prevalence, still very little is to be feared by those who avoid the known and common exciting causes. Fear is one of these causes, and stands in potency next to unclean

ness and intemperance. Cholera has not yet made its appearance in Buffalo, and it is by no means certain that it will, if it should, it may only appear in mild type, and produce but rarely fatal results—never unless aggravated by the influences indicated.

It is well to stimulate to active and energetic hygienic and preventive measures, but it is desirable that when this has been accomplished the excited fears in the public mind be also quieted, since alarm and fear are no less active agents in inducing disease than open sewers, overflowing vaults and lager beer; this dread in the public mind is not to be treated lightly; it is an important element and worthy of consideration. It has been already anticipated by charlatans and imposters, and cholera specifics and preventives are already announced. Vast sums of money will be early invested in this enterprise, and the "advertisements" would make the poor dupes who read them, believe that they are so potent as to even prevent the disease from crossing the Atlantic, if they are only kept in every dwelling and pocket ready for immediate use.

The history of the last epidemic of cholera goes to prove, that local and hygienic influences, are almost controlling—that the disease attacks for the most part only those who in some way provoke it, and that the other portion of the community suffer, if at all, mainly, from being "found in bad company."

Books Reviewed.

LECTURES ON INFLAMMATION: Being the first Course delivered before the College of Physicians of Philadelphia, under the Bequest of Dr. MÜTTER. By JOHN H. PACKARD, M. D., Author of "A Manual of Minor Surgery," Translator of Malgaigne's "Traité des Fractures," Secretary of the College of Physicians, etc., etc. Philadelphia: J. B. LIPPINCOTT & Co. 1855.

The author of these Lectures was appointed by the College of Physicians of Philadelphia to deliver the first three courses of lectures under the bequest of Dr. Mütter, the distinguished surgeon of Philadelphia, and Professor in the College of Physicians, who bequeathed to it his pathological museum, together with a fund for its preservation, and for the endowment of a lectureship. In ten lectures, the author has considered Inflammation, in all its varied forms and relations, giving the most recent views of modern pathology. The subjects of cell growth, animal heat, nutrition, reflex nervous influence, and various other similar topics are

discussed with great clearness and ability. Inflammation, its terminations, the nature and sources of its products, its causes, its purposes and the various theories concerning it, are all presented in a brief but comprehensive manner. All the various phenomena of inflammation are considered with most commendable exactness.

The tenth lecture is upon the therapeutics of inflammation—general relations of Pathology and Therapeutics, and the effects of cold, warmth and moisture, counter irritation, derivatives, bleeding, low diet, anodynes, counter irritants, and a great many other topics, which we have not space to enumerate.

These lectures are written in direct and forcible style, and embody the most recent pathological views upon the various questions discussed. There are so many topics embraced in inflammation and its terminations and associations, that we almost propose a new name for the work; the Philosophy of Life would scarcely admit of a wider range, since all the vexed questions in pathology are in some way connected with the phenomena of inflammation. The work is worthy a careful perusal, and should be in the hands not only of students of medicine, but of physicians, who cannot fail to obtain from it valuable practical suggestions.

Annual Address before the Medical Society of the County of Oneida. By C. B. Coventry, M. D., President of the Society. Published by the Society.

This Address is upon Tubercular Phthisis, which he says "consists in the deposition in the tissues of organs and on the surface of membranes of small bodies, first appearing simply as a thickening and opacity of the part, then of small bodies termed miliary tubercle, which may remain stationary or unaltered, or may gradually increase in size, become yellowish or cheesy, and finally soften and be gradually absorbed, or more frequently inflammation and ulceration occur, when they may be discharged.

Origin.—Pathologists differ in opinion, whether these bodies consist of original nutritive matter which is imperfectly organized, or of effete matter which the system is incompetent to eliminate, or of actual transformation of tissue; it is however, admitted that in either case it is an evidence of want of vitality or vigor in the system.

1st.—Tuberculosis is a constitutional, and not a local affection. Tubercles are found in almost every tissue and organ, as the membranes of the brain, the lungs, liver, peritoneum, intestines, etc.

2d.—Tuberculosis is hereditary. Dr. Armstrong in his Lectures says he has found tubercles in children at the breast, who had died suddenly of acute disease. No doubt exists that a peculiarity of constitution which predisposes the offspring to the disease, is transmitted from parent to child.

3d.—Tuberculosis may be produced, *de novo*, where there is no hereditary predisposition.

4th.—Tubercles may go on increasing and multiplying, or their increase may be arrested, and they remain an indefinite period of time, with no further disturbance of health than what arises from mechanical obstruction; this obstruction is of itself seldom a cause of death. I have met with one case of the kind; in this instance both lungs seemed masses of miliary tubercles, but there was no appearance of inflammation, or indications of softening.

The following changes it is supposed may take place in tubercles, when their progress is arrested and inflammation prevented:—1. Liquefaction; 2. Absorption; 3d. Fatty degeneracy, granular degeneracy, calcarious degeneracy, shriviling, pigmentum degeneracy, sequestration. We have no positive proof of the absorption of nascent tubercles. When inflammation supervenes in the lungs of a patient having tuberculosis, and terminates in ulceration, it constitutes Tubercular Phthisis; it should, however, be remembered that Pneumonia occurring in tubercular lungs, is usually more limited in extent, being usually or frequently confined to one lung, or a single lobe of the lung.

The remote or predisposing cause of tubercular phthisis, is a tubercular condition of the system.

The causes of tuberculosis, are:

1—Hereditary predisposition.

2—Insufficient or unwholesome food.

3—Insufficient clothing.

4—A variable and damp climate.

5—Confinement in dark, ill-ventilated and crowded apartments.

6—Irregular habits.

7—Exhausting drains, exhausting discharges, too long nursing.

8—Certain occupations, as stone cutting, etc.

9—Exhausting mental application and anxiety of mind.

The immediate or exciting causes of tubercular phthisis, are all those causes which tend to produce pneumonia under other circumstances."

He says, under the head of Prevention, "Mothers who are consumptive should not nurse their children, but a healthy wet nurse should be substituted for the mother; if this cannot be done, the child should be weaned as early as the seventh or eighth month, and nourished on healthy cows' milk. The child should be carefully protected from the inclemency of the weather, but should not be confined to the house; on the contrary, they should be permitted to spend as much time as convenient in the open air, should retire early to bed, and be up in season in the morning. The food should be light and nutritious, but not stimulating. In such children more care is necessary to prevent, than to stimulate or excite mental application; they should not be sent early to school, and the parents should see that the mind is not over-taxed. Girls who are delicate, if constitutionally inclined to consumption, should be kept from school from the age of twelve to fifteen, the preservation of health at this period is the most important consideration, and all the energies of the system are required to sustain the rapid growth and development which usually takes place at this age. Nutritious food should be used, warm clothing, plenty of exercise in the open air, cheerful company, and freedom from care and anxiety of mind are important. Young persons who are predisposed to phthisis, should be careful in selecting a profession or occupation that would not confine them too much, or be attended with much anxiety of mind. Formerly it was customary, if a boy was feeble or delicate, to give him a profession, or put him in a store, or to some sedentary mechanical occupation, on the ground that he was not strong enough for a farmer. Directly the reverse should have been adopted; if a boy is feeble or delicate, an occupation should be selected which would tend to improve his physical health and strength. Many young men have no doubt fell victims to this mistaken idea. When the predisposition is strong, or a person is actually threatened with the disease, a change of customary occupation, and even a change of climate may be useful.

Traveling, when the person can indulge in it, riding on horseback, systematic exercise of any kind in the open air, carried to the extent of moderate fatigue, is useful. If the appetite is good, the bowels regular, and the other functions of the system properly performed, the patient needs no medicine. The food should be nutritious, but not heating or stimulating; ardent spirits of every kind should be avoided. They should be warmly clothed to protect them against the sudden changes of the weather, and should be particularly careful to guard against all those causes which usually produce influenza, or what is usually termed taking cold; if, notwithstanding their care, they should contract a cold, they should at once apply for relief, and not permit it to run on without treatment,

It is a mooted question whether consumption is contagious. With the ancients there was no doubt on the subject, and even now in the southern part of Europe, the belief in its contagious nature is so strong that they burn the bed and bedding of consumptive patients. Modern writers have mostly denied its contagious nature; but Dr. Armstrong says that he is satisfied, that either from the irritating effects of the effluvia, or its poisonous character, it tends to produce the disease. Consumption is certainly not contagious in the same sense as small-pox, measles, etc., but that it may be communicated or produced by intimate intercourse, I have no doubt. We all know how common it is for whole families to be carried off, one after another, by this disease; it may be said that they were all probably suffering from the same predisposition and tendency to disease, and that the fatigue of nursing, broken sleep, and anxiety of mind, were sufficient to account for the circumstance, without the aid of contagion. When a pupil, I was cautioned by my preceptor, against making post mortem examinations of consumptive patients, for fear of contracting the disease. The late Professor Willoughby told me that his brother, who was a stout healthy man, caught the disease by nursing a sick daughter. I have seen so many cases where husband or wife have evidently contracted the disease, the one from the other, where there was no previous predisposition, that I have no doubt of its being communicated. Where there is a predisposition to the disease, the immediate connections should never nurse a consumptive patient.

The anxiety of mind, the disturbed rest, and confinement, would all tend to produce the disease, aside from contagion. In no case should they be permitted to sleep in the same bed, and care should be taken that the apartment is well ventilated. Whatever breaks up the general strength and health, tends to develop tubercles, if they previously existed, or to produce them, *de novo*. Dr. Armstrong says: "If you maintain the general strength in the children of families where consumption prevails, and also in adults, you will prevent the occurrence of the disease; break up the general strength, and the disease will be developed." This shows how cautious we should be in the use of active medicines in consumptive families, when suffering from other diseases, unless it be one of vital importance.

We also make a brief quotation of "treatment":

As has been seen, we have in tubercular phthisis three distinct stages, viz: 1st. Tuberculosis simply, without inflammation; 2d. Tuberculosis complicated, with inflammation; 3d. Tuberculosis complicated, with suppuration and ulceration of the lungs. It is not often the physician is consulted in the first stage. The indications are to arrest the farther progress of the disease, and particularly to guard against the occurrence of inflammation. This is to be effected by the use of all those means recommended for the prevention of the disease, viz: change of occupation, change of climate, horse exercise, a nutricious diet, warm clothing, regular habits, and living as much as possible in the open air. If the appetite is good, the bowels regular, and the patient rests well, medicine is not needed, and would be more likely to do harm than good. If the apppetite is defective, and the patient becomes emaciated, tonics and stimulants may be necessary. The cod-liver oil, when it can be taken, is well adapted to nourish the system; when this can not be taken, cream is now used as a substitute. Ale or porter, or wine, and even alcoholic liquors, as brandy or Bourbon whisky, may be advisable. The indiscriminate manner in which whisky is now used by patients, and even recommended by some physicians without reference to the actual condition, is much to be regretted. Alcoholic drinks are no doubt useful in some cases, but I fear their general use at the present time in consumption, is doing more harm than good. I am inclined to think that the sun's rays have more

influence on health than we are accustomed to imagine. The influence of the sunlight on vegetables is well known ; it is also known that tubercles may be produced in cows in dark and ill-ventillated stables, with meager and insufficient nourishment, and that in our large cities it is found very common among children living in dark, damp and imperfectly ventilated cellars, and often with insufficient food. Almost every person has experienced a difference in their feeling, between a dark, cloudy day, and one of bright sunshine. In our damp climate, we need sunshine more than shade. I am satisfied that the practice of surrounding our houses with shade trees so as to exclude the sun and air, is prejudicial to health, as also the pernicious custom of shutting out the sun from apartments, for fear of fading the carpets. If the ladies think more of the colors of the carpet than of the daughters' cheeks, they should do as a distinguished judge of our own State is said to have done in early life, viz: to keep the carpet rolled up, and only put it down on state occasions. Moderate labor, carried to the extent of slight fatigue, is no objection in this stage of the disease."

This address is so practical, so eminently scientific and sensible, that we should be glad to copy it entire. We have indulged this wish quite largely, and the main teachings of the paper are before our readers. It is the ripe fruit of an eminently practical mind, and Dr. Coventry has conferred a real benefit, by his plain, common sense teaching of the nature, causes, prevention and treatment of Tubercular Phthisis.

Books and Pamphlets Received.

The Practice of Medicine and Surgery applied to the Diseases and Accidents incident to Women. By William H. Byford, A. M., M. D. Philadelphia : Lindsay & Blakiston. 1865.

Materia Medica, for the Use of Students. By John B. Biddle, M. D. With Illustrations. Philadelphia: Lindsay & Blakiston. 1865.

The Use of the Laryngoscope in Diseases of the Throat. With an Appendix on Rhinoscopy. By Morell Mackenzie, M. D., Lond., M. R. C. P. Philadelphia: Lindsay & Blakiston. 1865.

Lectures on the Diseases of the Stomach, with an Introduction on its Anatomy and Physiology. By William Brinton, M. D., F. R. S. From the second English edition. Philadelphia: Lea & Blanchard. 1865.

Stimulants and Narcotics, their Mutual Relations: With Special Researches on the Action of Alcohol, Æther and Chloroform on the Vital Organism. By Francis E. Anstie, M. D., M. R. C. P. Philadelphia: Lindsay & Blakiston. 1865.

The Student's Book of Cutaneous Medicine and Diseases of the Skin. By Erasmus Wilson, F. R, S. New York: William Wood & Co. 1865.

The American Journal of Insanity. Edited by the Medical Officers of the New York State Lunatic Asylum. October, 1865.

Specialties in Medicine. By Henry D. Noyes, M. D. Read before the American Ophthalmological Society, June, 1865.

Catalogue of the Trustees, Overseers, Faculty and Students of the Berkshire Medical College, for the year 1865. Pittsfield, Mass., October, 1865.

Report on the Use of Pressure in the Treatment of Gonorrhœal and Purulent Ophthalmia. By Surgeon Joseph S. Hildreth, U. S. V. New York: John Medole. 1865.

American Educational Monthly. Devoted to Popular Instruction and Literature. September, 1865.

Report of the Willard Asylum, and Provision for the Insane. 1865.

Transactions of the American Ophthalmological Society. Second Annual Meeting. New York, June, 1865.

Reports of the Trustees and Superintendent of the Tennessee Hospital for the Insane, presented to the General Assembly, April 3, 1865.

A Report upon the Epidemic occurring at Maplewood Young Ladies' Institute, Pittsfield, Mass., in July and August, 1864: Including a Discussion of the Causes of Typhoid Fever. By A. B. Palmer, M. D., C. L. Ford, M. D., and Pliny Earle, M. D.

Southern Medical Journals.

Richmond Medical Journal.—We are gratified to be able to announce the probable appearance of the *Richmond Medical Journal*, the first number of which will appear in December next. It will be esited by Dr. E. S. Gaillard, who is widely and favorably known as an accomplished scholar, skillful physician and a ready and forcible writer. This journal is to be a monthly octavo, of from 80 to 90 pages, and will be published at $5 00 a year, in advance. We bespeak for the journal a liberal support from the profession.

The Medical and Surgical Monthly, of Memphis, Tenn., is also proposed for the new year. It is to be edited by Frank A. Ramsey, A. M., M. D., a physician of high literary and professional attainment. It is to be published at the subscription price of $6 00 per year, and to contain 64 pages, each number. We hope that with restored peace, may again return in the South an active cultivation of Medical Science.

Lindsay and Blakiston's Physicians' Visiting List, and Book of Engagements for 1866.—The profession are now fully aware of the convenience of this Pocket Companion. The publishers deserve many thanks for furnishing so compact, convenient and valuable a book; one which answers so many purposes, and at so small an outlay. For sale in Buffalo by THEODORE BUTLER, 159 Main St.

Commencement of Berkshire Medical College.

The commencement of the Berkshire Medical College occurred on Wednesday, Nov. 8th.

The exercises began at 10½ o'clock, A. M., by reading the Theses.

Prayer was offered by Rev. Dr. Todd, of Pittsfield, after which the President, Dr. H. H. Childs, briefly but impressively addressed the graduating class, and conferred the degree of Doctor of Medicine upon eighteen candidates, and the honorary degree of Doctor of Medicine upon eighteen candidates, and the honorary degree of Medicine upon Prof. Wm. C. Richards, of Pittsfield, and Robert Treat, of Wisconsin.

The exercises were concluded by a very able and exceedingly interesting valedictory, address, delivered extemporaneously by Prof. Wm. C. Richards, M. D., who was recently appointed to fill the chair of "Chemistry and Natural History," made vacant by the resignation of Prof. P. A. Chadbourne, M. D.

The following is a list of the names of the graduates and the subject of their theses:

F. S. Abbott, A M., Mind and its Influence on Disease; Charles Bliss, Fibrin and its Uses; A. J. Brown, Pyæmia; A. S. Dian, Acute Rheumatism; J. N. Dichson, Modes of Death; G. W. Emery, Variola; Stillman Getchell, Diagnosis of Pneumonia; W. A. Jones. Hereditary Transmission; F. B. Lawson, (excused); Chas McAllister, Abscess; J. G. Page, Necessity of recognising imaginary Diseases and remedies; M. J. Powers, Puerpal Peritonitis; O. F. Searle, Syphilis; E. H. Sexton, Evidence of Utero Gestation; Arnold Stedman, Tubercular Meningitis; Hiram Temple, Asthma; John Winsor, Diagnosis.

Medical Prize—Expectant Medicine.—One hundred dollars have been placed in the Treasury of the Massachusetts Medical Society, to be offered by the Councillors as a prize for the best dissertation on the following subject, the award to be made by a committee consisting of the President of the Society and four Fellows named by him:

"Expectant Medicine—the extent to which it is practised at the present day, and the modes in which it is disguised or counterfeited."

Essays must be forwarded to the Chairman of the Committee on or before October 1st, 1866, each with a sealed envelope containing the name of its author, in the usual way.

AUGUSTUS A. GOULD,
Chairman of Committee.

Boston, October, 1865.

In accordance with the above announcement, the following committee has been appointed, namely: Dr. Henry J. Bigelow, Dr. Samuel L. Abbot, Dr. Calvin Ellis and Dr. David W. Cheever.

It will be seen that the terms of the subject cover all cases of honest delusion or wilful fraud in the treatment of disease, in all the forms of excessive medication or the infinitesimal dilutions of homœopathy. As the prize is open to all competitors, we hope that our distant professional brethren may be induced to compete for it.—*Boston Med. & Surg. Journal.*

DANGER OF SUBCUTANEOUS INJECTIONS.—Prof. Nassbaum, of Munich, has just published an interesting account of an accident which happened to himself. Suffering from neuralgia, he had injected morphia under his own skin more than 2000 times—sometimes to the extent of five grains of morphia in twenty-four hours. Two months ago he injected two grains of acetate of morphia dissolved in fifteen minims of water, and accidentally sent it direct into a subcutaneous vein instead of into the cellular tissue. He gives a graphic account of his dangerous position for two hours, after which the effect passed off. He has seen similar effects in a small degree in two of his patients, and the practical lessons are, that as it may be impossible to avoid veins at all times, and one may be punctured unawares, subcutaneous injection should always be done *very slowly*, The effects are so instantaneous that the syringe can be stopped at the first sign of danger, and some of the injected fluid, mixed with blood, may even be sucked out again by the syringe. It is very remarkable how the effects of the same dose of the same substance differ when injected directly into a vein and mixed with venous blood, and when they filter into the blood from the celluluar tissue through the unbroken coats of the vessels.—*Medical Times & Gazette.*

BUFFALO

Medical and Surgical Journal.

VOL. V. DECEMBER, 1865. No. 5.

ART. I.—*Transactions of the Medical Society of the County of Kings.*

REGULAR MEETING, SEPTEMBER, 1865.

Small-Pox in Cities—The causes of its spreading and the means essential for checking it. By J. B. Jones, M. D.

It would have been presumption on my part to have taxed the time of the members of this Society by presenting a paper on variolus disease, containing my observations and the deductions or conclusions therefrom derived from my researches or practice, as an individual private practitioner, especially so when it will be borne in mind that we have had several valuable and apparently exhaustive papers, but recently presented on the same subject by other members of this Society, which papers will ever stand as monuments of industry and research, and stamp their authors as true lovers of science and ornaments to the medical profession.

But, Sir, occupying the position of health officer of the city, I, under our laws, become possessed of a vast amount of material facts not possible to be acquired by the entire corps of practitioners in the city. The papers referred to generalize, while the facts I present are local, and pertain chiefly to Brooklyn, and affect us all both socially and professionally. They corroborate many of the statements contained in the papers of Drs. Bell, Hutchison and others, and are of value on that account, if no other. They may serve to strengthen opinions deduced from individual observation in private practice, and may perchance enlighten some, and be the means of removing prejudices now known to exist in the profession in relation to actions necessary to be taken municipal, professional, and by the community, when the disease is present, and especially what actions are imperatively demanded to *prevent* its presence as far as lays in our conjoint power.

The health laws of Brooklyn require every person practicing physic in the city, who has any patient sick of a malignant, contagious, infectious, or pestilential disease, to make and file in the office of the Board of Health, within such time as the said Board may determine, the name of such patient, the house and place, and the name and nature of such disease, to the best of his knowledge and belief, failing to do which he is subject to a fine of $250, or six months imprisonment, one, or both. (See Title IX, City Charter.)

This law, without material alteration, has existed since Brooklyn was a village, and has been the source of much just complaint from physicians, for were they to observe it to the letter a large portion of their time would be occupied in their visits to the Board of Health to make unnecessary, useless reports, and in not a few instances it would require them to expose matters confidentially entrusted to them, the keeping of which they are professionally and in honor bound to do, and are sustained by the courts in so doing.

This matter I called the attention of the Board of Health to, and was requested by that body to draft such a law as would in my judgment attain the object desired, and relieve the physicians from unnecessary trouble. This was done, presented to the Board, approved of by them, and a resolution passed recommending our representatives to secure its passage. Previous to its presentation it was submitted to a number of distinguished members of the profession, and met with their entire approval. The following is a copy of the proposed law:

"Every person practicing physic in the said city, who shall have a patient sick of small-pox, yellow, typhus, typhoid or spotted fever, or cholera, shall make and file a written certificate thereof within twenty-four hours after his first attendance on, or the earliest development of such disease, in such patient, stating the name, age, nativity, disease and house, or place where such patient then shall be, in the office of the Board of Health.

And the Board of Heath may require every and any person practicing physic in said city who shall have any patient sick of the above mentioned or any other contagious, infectious, malignant or pestilential disease, in any manner susceptible or capable of being

controlled or influenced by the amount of general or local causation, or whose virulence or spread are in any manner capable of being controlled or prevented by public or private sanitary regulations or hygienic measures, or where by the adoption of such regulations or measures the community can be protected or benefited, to make and file in said office within such time as they may prescribe, not less than three hours after service of a copy thereof upon him, an affidavit stating therein whether he has or has not any patient, who in his opinion shall then be sick of any such disease, and if he has any such patient to state in such affidavit his or her name, and the house or place in said city where he or she shall then be, and the name or nature of such disease, to the best of his knowledge and belief."

The advantages of such a law are so apparent that argument is unnecessary. The only argument, if such it could be called, against a law of that character, that has been presented to me was to the effect that the authorities had no right to tax a physician's time without compensation. In place of its being a tax on the time of medical men without compensation, it might rather be designated an attempt to prevent the improper use of their time whereby they derived unlawful compensation, for what right, moral or constitutional, has any man to cause the spread of disease, or to act or dispose of his time so as to deteriorate health and shorten life because he finds it profitable to do so?

When these returns are made they are placed on record. It is the duty of the health officer to visit *all* such cases, examine them and their surroundings, and report in writing to the Board of Health his opinion of the nature of their sickness, surroundings, etc., whereupon said board take action.

If the sick are so circumstanced that they can be completely isolated, properly nursed and otherwise attended, having nourishment and properly ventilated apartments, and are not in crowded tenements, they are left at their homes, if they are not thus circumstanced they are removed in a vehicle especially provided and set apart for that purpose to the hospital, provided their lives are in no wise jeopardized thereby; if they are too sick to be removed, they are supplied with all things necessary, such as medical attendance, medicine, nurses, food, etc.; in either case, wealthy or

poor, when left at their homes, communication with them except by physicians, nurses, and persons conveying them food, is prevented. No articles are allowed to be removed from the sick chamber that might convey the infection to others. When the patient has convalesced all such goods are taken charge of by the authorities, and the proper cleansing of the premises are secured under their supervision or direction.

When the sick are removed to the hospital, if able, they must pay expenses incurred on their account, by the authorities, including board at the hospital; if they are not able to pay, the city "foots" the bill.

It is very gratifying to be able to state that a number of wealthy persons, effected with variolus disease, availed themselves of the advantages of our hospital during their sickness, and subsequently expressed themselves as feeling grateful for the careful nursing, fine accommodations, medical and general attendance they received. Such testimony from persons who have luxurious homes will lead you to anticipate the laudatory testimony of the poorer classes who occupied adjacent beds, particularly when the fact is known that the poorest patient receives the same care, attention, etc., in common with the wealthiest; the poor laborer with the rich merchant occupy the same ward, lying side by side, attended by the same physician and nurse, and subject to the same rules, etc.

When the sick are removed, all infected articles in the apartments they are taken from, are seized by the authorities, taken to a proper place and destroyed by burning them. If the goods thus destroyed belong to persons who will not suffer by their loss, no restitution is made, but if they belong to persons who are poor, and they constitute the majority, and who would seriously suffer by such loss, the Board of Health make restitution to such extent as in their opinion the case demands.

The owners, agents and occupants of premises where such sick are located or removed from at a proper time are notified to cleanse, purify, disinfect, etc., such premises within a prescribed time; failing to do which the authorities cause the same to be done at the expense of such owner, etc. In removing the sick the less frequented streets and roads are driven through, and the patient closely covered.

Visitors are not permitted to enter the hospital where such persons are taken, except when a fatal issue is anticipated, then a relative or friend is admitted, and when so admitted they must not leave until the sick is either convalescent or has ceased to live, and in either case not until such measures are adopted that the community are secured from danger by contact with them. All persons interested in the welfare of the sick can send things to and commnnicate with them through the health department daily, which is distant from the hospital about 3½ miles.

I was enabled from former experience in this department to anticipate the presence of this disease in our midst, and early in the year made preparations accordingly. The Board of Health were convened a month earlier than ususual, public attention called to the subject, a large supply of most excellent lymph procured, etc. In May, thirty-two cases were reported, at which time active measures were adopted, but in August they were temporarily suspended, only six cases having been reported, and the fund of the Board having become exhausted, the Board deemed it best to await further developments before applying to the Common Council for a special fund to meet the emergency. The disease gradually increased from this time. In November it was deemed necessary to raise the monies necessary to carry out vigorous measures. The President of the Kings County Medical Society was invited to meet the authorities in consultation, at which meeting the means and measures necessary agreed upon, the Common Council concurring in the opinions expressed by the Board of Health, promptly appropriated the amount asked for.

Physicians were employed in each ward to visit every house and proffer vaccination, free of charge, to all. If several cases occurred in any one neighborhood, we immediately surrounded such vicinity by a cordon of physicians who visited every person in such district, and vaccinated as speedily as possible all who could be prevailed upon to accept the boon.

The Board of Education were notified of the presence of the disease and arrangements made with them to have physicians attend daily at the various schools to perform vaccination and revaccination upon all who would then accept. The Board at once put in force the law of 1860, a special act pertaining to the public

schools of Brooklyn, which states that no child shall attend the public schools of this city unless they are or have been vaccinated. This law almost makes vaccination of school children compulsory.

The proprietors of factories, the principals of academies, and the presidents of companies where numbers of persons daily congregated, were notified of the existence of the disease, proper sanitary regulations suggested to them, and the fact made known that any one could be vaccinated without charge at their homes, or at the several dispensaries throughout the city where provisions had been made to that end.

Railroad and ferry companies were strictly enjoined from carrying passengers affected with this disease.

The following resolution was printed and sent to the livery stable keepers and hackmen in the city, advertised in the corporation papers, and posted on fences about the city, under the direction of the Hack Inspector.

In the Board of Health—

Resolved, That all hack drivers are hereby forbid carrying any person or persons infected with any contagious or infectious disease, especially small pox, in their hacks, etc., under the penalty of having such vehicles confiscated and destroyed, in such manner as this Board may direct.

In my visits to the sick if I found that any member of the family had in my judgment been exposed and his person or clothing become infected, and that he or they worked in any store, shop, factory or other place where others could, through him or them, be infected, information was immediately furnished the proprietor, foreman or other person having charge of such places.

Superintendents of Sunday Schools were duly informed of cases occurring in the families of the attendants of their respective schools. We have gone into week-day and Sunday schools, and taken therefrom children who had gone thereto direct from an infected place; in some instances direct from personal contact with infected persons. In several instances small-pox matter has been found adhering to their clothes.

Wherever a case occurred, if there were more than one family in the house, all were notified, the residents adjoining, and those residing in the second and third premises therefrom were advised of its presence in the vicinity, vaccination and re-vaccination recommended, and in many instances at once performed.

We have in this city a number of small retail stores, many, and I think the majority of the owners thereof, with their families, large or small, as the case may be, rent and occupy but the one floor; this floor they divide into several apartments by means of wooden partitions, which they generally cover with paper. These partitions as a general thing reach from half to two-thirds the distance from the floor to the ceiling. In front they keep their goods for sale. Next to this place they devote a small place for sleeping purposes, and to the rear of the sleeping room the space is used for kitchen, dining, sitting and general living room. In many cases there is but one partition, with the store on one side, and the sleeping, cooking and all other matters incident to family affairs transacted on the other side. The diagrams will illustrate manner of dividing the apartment:

In the beds I have found as many as three cases of small-pox; in one instance I found three in one bed sick with small-pox, and in the general living room one dead of the same disease, several of the neighbors sitting therein, and the family dining in the store. In passing from the general room to the store you came in direct contact with the sick, the wooden partitions reaching only half or two-thirds of the way to the ceilings, one atmosphere was common to all apartments on that floor.

In such pest places, friends, neighbors and customers were received, entertained and waited upon, by persons in many instances direct from the bedside of the sick or dead. I have even found children sick with this disease lying under a counter, over which the mother was selling goods to a customer.

These citations will serve as types of hundreds of others met with during the prevalence of this disease. In all such cases I caused the stores to be closed, and adopted other effectual measures to protect the public.

In many places I found from one to six dozen each, of pants, vests, and coats in the hands of workmen to be made up, principally for the large clothing houses of the city of New York. These goods were designed not only for the civilian, but in part for the use of our brave soldiers. I have seen such goods used as pillows by persons covered with small-pox. I have found them in cribs and in beds, serving as quilts to cover the sick, and upon examination have, in a number of instances, found small-pox matter deposited on such goods. All such goods found have been seized and burned.

I have known coachmen, car conductors and drivers, washerwomen, clerks, merchants and laborers, to go direct from the bedside of the sick to their several vocations, using the city cars as a means of transit through the city, and those whose business called them to New York to enter the densely and very improperly packed ferry-boat cabins. When remonstrated with upon the impropriety of such actions some professed to be ignorant of the fact that they could communicate the disease to others. Some were of the opinion that direct contact with the sick was essential for infection. Some claimed that they were necessitated thus to act, whilst others knowing that they could spread the disease seemed totally indifferent whether they did or not. Remedial measures were adopted to meet all such cases.

It is a common practice to keep the soiled linen from the person and bed, as the changes are made for a week in the room with the sick, and then deliver such clothes to some wash-woman to be taken to her home to be cleaned. One family who were very much afraid of the disease spreading among the other members thereof, collected them as stated, and when the washer-woman called for them they would be thrown to her from the window of the sick room to the sidewalk! This wash-woman took the clothes to her residence, a tenement-house in which resided over one hundred persons.

It is not uncommon to find cases of small-pox in the same room where clothes are being washed and ironed, the nurse being the

washer-woman, going from the bed-side to the tub or ironing-table, or from an infected nursing child she may have just had in her arms direct to her patrons, with these undoubtedly infected clothes. The amount of abject poverty discovered, distress relieved, and good accomplished, other than that which relates to small-pox by these visits of inspection would undoubtedly be highly interesting and instructive, but they do not pertain to the subject under consideration. I therefore reluctantly omit them. The beneficial effect of these combined measures have in each instance of the appearance of the disease in this city been markedly apparent. The brief histories of the following cases will afford the members of the Society material upon which to base their actions in the event of cases of small-pox occurring in their practice:*

Of the 818 cases of variola, reported as such, I found 216 with evidences of having been vaccinated, 13 of the number could not show any cicatrix, but had one or more members of the family to bear witness to the fact that in early life they had been vaccinated. Twelve additional cases were found who had been repeatedly vaccinated without effect. Sixty-two stated that they had been vaccinated in infancy and felt secure, but they had no evidence of the fact either upon their own persons or from the testimony of others.

In three cases other than the above, reported as variola, the patients were found to have well marked scarlatina anginosa. Cases were visited on the 4th and again on the 10th day of the disease. In seven cases *well marked* measles were found instead of variola.

In two cases, other than the above, an eruption was found confined to the scalp, one proved to be porrigo and the other impetigo.

In 558 cases reported as variola there were found 17 cases of confluent variola, and 71 variola discuta.

In 37 cases, other than the above, reported as varioloid, 19 different diseases were found.

The rate of deaths from variola during 1864 was $19\frac{23}{159}$ in 100, or nearly 1 in 34.

According to my records the small-pox is most prevalent under one year of age, 132 cases occurring, from one to five years only

* The cases referred to illustrative of the foregoing remarks are here omitted.

60 cases occurred. From five to twenty years of age there occurred 449 cases. From twenty to thirty there occurred only 148 cases, while from thirty to forty 106, and after that up to fifty 32 cases.

According to the same records varioloid is less prevalent under one year and most prevalent between five and ten years; in the former 17 cases were reported; in the latter 63. Varioloid gradually declines from twenty.

The number of persons vaccinated was 36,690, of which 8,547 were primary, 16,335 were re-vaccinations, and 11,808 were returned as vaccinated, without designating whether they were primary or re-vaccinations.

Twenty-seven physicians were employed to perform this work, whose aggregate time amounted to 1029 days. They received for their services $4,116, making an average cost for each person vaccinated of about 12 cents!

Can anything more be done for Brooklyn in relation to this small-pox question? I answer emphatically, yes, not only for Brooklyn, but for the entire country. Give us laws making it compulsory for every one born in the State, or resident thereof, to be vaccinated and re-vaccinated; economy, justice and humanity demand it.

We may not by such laws be able to exterminate the disease, but we can so protect the people that the mortality will be diminished to such an extent that death from it would be rare and cease to excite the public mind.

From observation and research I am led to strenuously recommend re-vaccination to every person under thirty years of age as often as every fifth or sixth year. That small-pox is at all times present to a greater or less extent in all large metropolitan, commercial cities and adjacent places is beyond dispute.

That it cannot exist in the first mentioned places, in any considerable numbers without spreading to those places that are connected therewith by the ordinary means of travel, even should such places be distant hundreds of miles therefrom. has been made evident and placed beyond cavil.

That those places immediately bordering great cities are the more seriously effected is a logical deduction. That the means at

present used cannot prevent its introduction into or its appearance in such places is made patent by experience.

That the laws in this State, and I believe in every other State in the Union, are culpably deficient, must be evident to the casual observer. That by judicious laws properly applied in cities and throughout the States, the number of *cases* which would occur annually, would not amount in the aggregate to the number of *deaths* which now annually result from this disease. That the reason why such laws are not now existing in this country, is due to a very great extent to the want of intelligent and combined action of the medical profession.

ART. II.—*Cholera.* By Dr. Felix Niemeyer, *Professor of Medicine in the University of Tubingen, Germany.*

Translated from the German by Theodore A. McGraw, M. D., Lecturer in the Detroit Preparatory School of Medicine.

Aetiology.

The question whether or not cholera is contagious, has been for a long time a subject of debate. It has however been stated in a too indefinite and too inexact manner to lead to any positive results. The facts which have been collected together regarding the manner in which the disease is propagated, would indicate that it belonged properly neither to the class of contagious nor to that of non-contagious diseases. It is, on the one hand, certain that cholera is not communicated directly from one person to another even under circumstances of the greatest intimacy, but on the other hand it is as certainly spread only by patients afflicted with the disease. *It is the evacuations of individuals infected with cholera through which, probably in all and certainly in most cases, the disease is propagated.* The admission of this theory, for which we are indebted to Pettenkofer and Delbrueck, throws light on a multitude of facts hitherto little understood and apparently contradictory. By means of one infected person in whom the disease has manifested itself only by an insignificant (seemingly) diarrhœa, cholera can be conveyed to a hitherto healthy locality. This person may travel on and recover without farther development of the disorder, but he has left behind him in the water closet matter which may give rise to a most deadly epidemic. It is thus no

longer inexplicable how the cholera in its wanderings takes no defined course, but spreads indifferently, now from west to east, now from east to west, now with the wind and now against it, how it always follows the routes of travel, how it does not go from place to place in a shorter time than is required for men to traverse the same distance, and how since the building of railways it has been able to spread more quickly than before. We can thus at least in part explain the great leaps which it has sometimes made. In the localities visited by the disease the houses and streets in which those infected reside, are the places of the greatest danger because the evacuations are emptied into the neighboring privies and sewers. It is not seldom that a single house or street, is even for a long time the only infected locality, and that those inhabiting it are alone seized by the disease. But while those buildings and avenues first visited by the cholera are being depopulated, the poison sooner or later is communicated to other houses and streets in the neighborhood, partly by means of common privies and partly by other ways which we cannot always discover. Often at the end of an epidemic the cholera rages in a portion of the city which at its beginning was completely spared while those wards which at first were decimated by the disease, are then entirely free from it. Similar experiences have been made in all places where the epidemic has raged, although in densely crowded cities the observations are of course made with more difficulty than in thinly settled villages.

I can cite one fact from the Magdeburg epidemic of 1859, which speaks for the correctness of Pettenkofer's views. The cholera was brought into Magdeburg in this year by means of a transport filled with recruits from Stettin, which was at that time visited by the disease, and during the first week after their arrival, cases occurred only in the street in which the sick recruits had their quarters for the night. In Greifswald, a small and thinly built place, I was able in a little epidemic which I had an opportunity to observe, to prove in every instance that the individuals attacked with the disease had used the privies of the houses in which there were cholera patients, or into which cholera discharges had been emptied.

But although we may consider it proven that cholera is prop-

agated by the means of the dejections of those infected, it is nevertheless probable that the poison is not usually present in stools just discharged, but is generated in them at a later period, and under certain conditions favorable to its development. Exceptionally, however, it would seem that infection may take place from fresh discharges. For the knowledge of the conditions favorable to the generation of the cholera poison from the dejections, we are indebted again to Pettenkofer's meritorious labors. He has shown first of all that the contact of the discharges with putrid animal matter especially favors its development—a relation which reminds us of the influence of the decomposition of animal matter in the production of typhus fever, and that of vegetable substances in the generation of malaria. There can be no question that the imprudence with which cholera discharges are emptied into common privies, gutters and sewers promotes the spread of the disease, that the saturation of the earth of the great cities with the putrid products of decay is one of the chief causes of the greater intensity and diffusion which marks the disorder in them, and that the accumulations of filth and organic remains belong to the most active agents concerned in the development of the noxious principle. The neighborhood of a river on whose banks are collections of stagnant water, predisposes to its generation and diffusion. The character of the sub-soil is also not without its influence, a soil of loose and porous nature being more favorable to its production than one of rocky and compact formation.

There are however many phenomena exhibited by the cholera in its wanderings which can not be explained on any existing theory. As many swamps are free from malaria and many localities which possess none of the attributes generally connected with its production are nevertheless infested by it; so also such places as apparently afford every condition favorable to the generation and diffusion of the cholera poison escape, sometimes, altogether from its ravages, while others in a seemingly healthy condition are harrassed by its presence. The susceptibility to the poison is very general, and no age, condition nor sex is free from it. At times when the cholera is spread over a whole city, almost all its inhabitants, even those spared from its severer visitations, suffer in greater or less degree from its influence. There are certain agen-

cies which will predispose the constitution to acquire the severer forms of cholera, and which lessen its powers of resistance. These are especially errors in diet, the use of emetics and purgatives, exposure to changes of weather, and all causes which are apt to induce a morbid condition of the alimentary canal. There are silly people who excuse their excesses by the assertion that the manner of life has no influence on the development of the disease, as men who live most carefully in every respect are often seized with the most virulent form of the pestilence.

Such reasoning deserves no reply, for whoever is in danger of seizure by a disease of which many have died, while others have recovered, acts foolishly and wickedly when he exposes himself to influences which would lessen his chances of a favorable termination even though the avoidance of these influences could by no means secure him from a mortal issue. It is said that the number of cholera patients received into the Parisian hospitals on Mondays, during an epidemic, is an eighth greater than on any other day. In the Magdeburg epidemic, the opening of the fairs in which opportunity was given for excesses of every description, had again and again a most unfavorable influence on the number of cases of seizure and death.

[*Note by Translator.*—How well the course taken by the pestilence in its recent outbreak on board the Atlanta can be explained by Pettenkofer's theory. The disease sprung up in the steerage into which it may have been brought by one infected individual. The water closets used by the different classes of passengers and crew on board ship are, as is well known, entirely distinct. While the cholera raged among the steerage passengers, *not one person* belonging to the crew or first cabin passengers was attacked. This theory also affords a good explanation of the fact that the disorder is generally more active on lines of travel by water than by land. Very few passengers use the privy on board a train of cars, while probably the greater number avail themselves, on a long journey on board boat, of the common water closet.]

Post Mortem Appearances.

The bodies of those who have died of cholera, continue for a long time singularly warm. There has even been observed in certain cases an increase of temperature after death. A second

most singular phenomenon exhibited in these corpses, is the muscular contractions occurring often hours after death, by which the extremities, and especially the fingers are moved and made to alter the positions which they had assumed immediately after death. I will confess that both the movements of the fingers which have taken place in my sight, and the changed positions in which I have found the bodies after a few hours' absence, as often as I have witnessed them, have made upon me most painful impressions. The appearance of the corpse is most characteristic when death has occurred at the height of the disease. It is generally found in an attitude resembling that of a boxer and its clenched fists, its limbs bent in various directions, and its muscles rigid and prominent, lend it a most threatening expression. The extreme degree of rigor mortis is hard to overcome. The face is often so distorted as with difficulty to be recognized. The eyes are sunk deep into their orbits, and are surrounded with a deep blue ring. The lids are half shut, the uncovered parts of the bulbs are dry and parchment-like. The nose is sharp and seems to rise far above the hollow cheeks. The lips are of a dark blue or even brown color, and the rest of the body has a livid appearance which, however, is most marked on the fingers and toes. The skin on the fingers is often shriveled, rough, and similar to that of a washerwoman who has been working in soap-suds or ley. On opening the body one is struck with the hard and dry condition of the cellular tissue, and the dark red hue of the muscles. The blood is found to be thick, and of the color of whortleberry juice, and distends the veins by its quantity, while the arteries and left side of the heart are completely empty. The veins and sinuses of the brain are full of dark blood, but its substance is dry and firm. The pericardium contains no serum, its surface feels glutinous and is covered with echymoses. The muscles of the heart are contracted, dry, and of a dirty red color. The surfaces of the pleurae, like those of the pericardium and other serous membranes, are coated with a layer of viscid matter and spotted with extra vasated blood. On opening the thorax the lungs collapse very quickly and completely, apparently on account of the little resistance offered to the exit of air by the dry and empty bronchi.

On cutting into the pulmonary tissue one is struck with the absence of every sign of hypostasis and œdoma, a condition of the lungs rarely found at an obduction. The flabby loops of the small intestine present a peculiar rosy appearance, but the large intestine looks entirely normal. On opening the ileum there flows out an enormous quantity of rice-colored fluid, in which float white, floculent particles. This liquid is found in most abundance in the so-called cholera sicca, "dry cholera." The vessels of the mucous membrane are very minutely injected with blood, the injection being most marked at the ileo-cœcal valve, and decreasing towards the duodenum. It is, besides, often discolored by extravasations of blood into the cellular tissue beneath. In many cases, however, the mucous membrane is marked neither by injection nor extravasation, though the intestine is nevertheless distended by enormous quantities of rice-colored fluid. As this transudation of serum takes place doubtless from over-filled and not from empty vessels, it is probable that the pale appearance of the mucous membrane is only the effect of a post mortem change. To find at an obduction, membranes of this class, pale and apparently destitute of blood vessels, which during life showed every symptom of hyperæmia, and which poured from their surfaces a profuse secretion, is an every day experience. All the coats of the small intestine are found swollen and œdematous. The solitary and agminated glands are alike swollen, and filled with a watery exudation. The glands are sometimes as large as a mustard-seed in size, and the inner surface of the intestine looks as if sown with protuberances, some isolated and others collected in groups. In some specimens the single follicles have burst, and thus given the membrane the appearance of a sieve. The most important lesion, however, is the extensive destruction of the epithelium lining the canal, by which the villi are robbed of their protecting sheaths. Sometimes the epithelium is merely lifted up by the transudation underneath, but most generally it is completely dast off, and lies on the intestinal wall in slimy strings or floats as white flakes in the serous fluid. The lesion of the intestine is exactly similar to that produced on the outer skin by the action of cantharides or boiling water, insignificant as long as the affected service is limited in extent, it becomes dangerous when it occupies a large part

of the canal. We can readily understand how observers, who have not taken this into consideration, have complained of the disproportion of the severity of the symptoms observed during life, and the morbid appearances at the obduction. The large intestine shows no constant changes. In the jejunum, also, there are only slight variations from the normal. The mucous membrane of the stomach is more or less reddened by hyperæmia and the extravasation of blood. Its cellular tissue is lax and swollen from serous infiltration. The liver is of normal consistence, but is pale in color, and its vessels when cut through discharge a small quantity of thick blood of dark hue. The gall bladder is distended with thin brown or green gall. The spleen presents no constant lesions. The kidneys are, in the first stage of the disorder, with the exception of a moderate venous engorgement apparently normal. They are sometimes, however, especially in the pyramids, discolored with whitish spots which are found on microscopical examination to be caused by a deposit of epithelial scales and fibrinous casts in the tubuli urmiferi. The mucous coat of the ureters is covered with mucus and loose epithelial scales. The bladder is contracted and almost always completely empty.

The most important and characteristic lesion then to be found in the bodies of those who have died in the stage of collapse consists in the effects of an extensive catarrh of the mucous membrane of the small intestine, connected with a general detachment of the epithelium, the transudation of vast quantities of serum into the alimentary canal and a concentration of the blood. The obduction gives somewhat different results if death has occurred in the stage of re-action, or in the so-called cholera typhoid. The limbs are then less often flexed, the rigor mortis is less marked, the teeth and gums are covered with a dry, dirty secretion, the livid hue of the skin has vanished, the cellular tissue and muscles contain more fluid, and the blood has recovered partially its normal color and consistence. The membranes of the brain are the seat of a fine injection. In the meshes of the pia mater and in the side ventricles there are often considerable collections of fluid, and the brain itself is less dry and hard. The right heart however is still distended with blood and the endo cardium and the inner coat of the large blood vessels are much injected. The lungs in this stage

are no longer dry, but are congested, and often the seat of extensive œdema and hypostasis, and in many cases, of inflammation and circumscribed hemorrhage. The outer surface of the small intestine has lost in this stage its rosy appearance and its contents are colored with gall. Sometimes the epithelial covering has been completely regenerated and the gastro-intestinal mucous membrane exhibits no lesions whatever. This is, however, not always the case, as the intestine in the neighborhood of the agminated glands is often affected by a diphtheritic inflammation, by which the mucous membrane is changed in spots into dry, dark brown sloughs. This morbid condition is found in the large as well as the small intestine and in the gall bladder, vulva and vagina. The liver and spleen are marked in the stage of re-action by an intense hyperæmia, and the latter organ has even been found ruptured. The kidneys are highly congested, and show signs, though not in all cases, of an acute membraneous inflammation.

Symptoms and Course.

Almost every one who, in a cholera epidemic, lives in the infected circle complains of an oppression in the epigastric region, of flatulence and disturbance of the bowels. These symptoms of a slight indigestion and of a determination of blood to the abdominal organs, which undoubtedly spring from the action of the poison on the organism, gather in intensity and become significant of an attack of the severer forms of the disease only with a certain degree of concentraction of the poison or debility of the body, which gives it an opportunity to act. But during the excitement which always reigns in an epidemic, men are disposed to refer also the not infrequent attacks of syncope, cramp and other disturbances of the nervous system to the prevailing disorder, and the opinion is widely spread even among medical men that the fear of cholera paves the way for its approach. So strongly has this been impressed on the public mind that in cholera times not a few have been heard to express anxiety lest they should be seized with the *fear* of the disease. I do not believe that this opinion is well grounded, and regard these symptoms as the result of the apprehension, which the fearful plague, the news of its daily and hourly progress' and the numberless, unexpected cases of death, causes in excitable people. Sensations very similar are felt by the inhab-

itants of a bombarded city, and if frightened men are not exempt from danger from the disease, they are nevertheless not oftener attacked by it than the unterrified. Cholera never announces itself, according to my experience, by a feeling of anxiety, by syncope or cramp, although it not unfrequently happens that those seized by the disease are first induced to send for a doctor when these symptoms have been developed. If such patients are carefully examined it will be found that they have suffered for a little time previous from a slight diarrhœa, which they did not think worthy of attention. The period of incubation is reckoned by many observers at one or two days, though according to others it lasts eight or ten days. The opportunity to observe with exactness the time which passes between the infection and the manifestation of the disease is rarely offered.

In some cases which I observed in 1859, in Greifswald, as well as in several occurring in a small village on the Mecklinburg frontier, in which Dr. Grüttner (at that time house physician in the Medical Policlinic at Greifswald) was able to estimate with tolerable exactness the time of the infection, the time elapsing between the exposure to the disease, and its outbreak was certainly not less than thirty-six hours nor more than three days. The lightest form of cholera is a simple diarrhœa, which is accompanied by neither colic nor tenesmus, and which, excepting a moderate degree of debility, causes no general disturbance. The frequent evacuations are singularly copious and of watery consistence, but neither free from odor nor colorless. These cases are, to be sure, not reckoned as cholera in the official list, but if not acknowledged as such by the police, they should be at least by the scientific observer. The great number of diarrhœas which occur in cholera times, although all reasonable men are then careful to avoid all errors in diet and other influences which might predispose to the disorder, the innumerable cases where the disease has been communicated by individuals who suffered only from diarrhœa, the great obstinacy with which these diarrhœas resist all remedies and the powerlessness of the opiates to check them, the frequent development of the severer forms of cholera after a previous looseness of the bowels, all speak for the correctness of these views.

Very many sick, especially among the poorer classes, who have

consulted the physician in person, at his office, on account of a diarrhœa which caused them anxiety from its obstinacy, have lain at evening cold, pulseless and livid, in a truly desperate condition, on their beds. The transition from the lightest to the severest form of cholera is best marked in those cases in which uncontrollable vomiting is added to the already existing diarrhœa, in which the discharges assume the characteristic appearance of cholera stools, without however being accompanied by much thickening of the blood or paralysis of the heart. This still mild form of cholera has received the name of cholerine. The decoloration of the dejections depends altogether on their excessive quantity, and the thinner and more copious they are and the quicker they follow one another, the sooner they lose their fæcal color and smell. Sometimes the whole contents of the intestine are discharged at once, and then the discharges show even at the second evacuation the distinguishing features of cholera stools. The lack of color in the dejections does not however indicate that the secretion and discharge of bile have ceased to take place, for if poured out in normal quantity it could not give color to the enormous evacuations of cholera patients. The fluids thus discharged, prove on examination, to be deficient in albumen, and rich, proportionately, in chloride of sodium and other salts. The white flakes floating in the serum consists chiefly of epithelium, which has been detached from the intestinal walls. The stools contain, also, though not constantly, crystals of the triple-phosphates, remains of food, parasites, etc. Occasionally they are found to contain blood corpuscles and the discharges are then richer in albumen, which has been poured out into the blood from the broken capillaries. These properties of the cholera stools which are recognized by everybody as pathognomonic of the disease, explain all its other symptoms.

The processes which are called into action in the intestine by the cholera poison are similar to those which occur in the skin on the application of a vesicating plaster. In both instances the protecting covering is lifted up by the copious secretion beneath it, and it depends solely upon the intensity of the process and the extent of surface denuded, whether sufficient fluid is extracted from the blood to induce paralysis of the heart and to endanger

life. The thirst which patients suffer in the first stage of cholera, that of simple diarrhœa, is increased to a terrible intensity as soon as the colorless stools begin to be discharged. This symptom is easy of explanation, as it is experienced in all cases where water is drawn from the blood, whether it be by insensible perspiration in febrile diseases or by increased secretion of sweat or urine. In cholerine the loss of fluids is greater than in simple diarrhœa, and the thirst is proportionately increased. In addition to the large evacuations, the intense thirst and the general debility, there is another symptom, which is very painful to the patient, and which we are not able satisfactorily to explain, viz, the cramps which occur at broken intervals, in certain muscles, and especially the gastrocnemii. These cramps are not however pathognomonic of Asiatic cholera, but are also observed in cholera morbus.

[*Note by Translator.*—It seems to me that these cramps can be referred to exactly the same cause as the other symptoms enumerated. Nothing is more certain than that the sudden absorption of water from nervous tissue acts as an irritant, causing pain or muscular contractions according to the nature of the nerve affected. The irritation caused by the contact of glycerine, solutions of salts and other chemicals with exposed nerves, have been explained by physiologists, who have devoted their attention to this subject, on the hypothesis that they extracted from the nerve the water necessary to the processes of nutrition. "That the sudden extraction of water really irritates the nerves, can be proved by the most convincing experiments. Eckard obtained contractions of the muscles of a frog's leg by bringing in contact with the nerve substances having a strong affinity for water as sugar and glycerine, also by drawing the fluids out with blotting paper, by putting it near strong sulphuric acid in a closed vessel, and by suddenly evaporating the water by passing a current of dry, hot air over it or putting it under an air pump." (Funkes' Physiologie, pp. 679–680.)

In cases of cholerine which result in recovery, the evacuations become gradually less frequent and copious, the bile discharged into the intestine is again sufficient to give its peculiar color to the discharges, the diarrhœa at last ceases, and the patient begins to convalesce. His convalescence is however usually very tedious. In some cases the disease, even after this stage has been reached,

returns and assumes a threatening intensity. In others again no favorable change takes place at all, and the cholerine passes more or less quickly to the severest form of Asphyctic cholera.

In this form of the disease we see the poison operating in its greatest intensity, but as in cholerine, are able to refer all its symptoms to the extensive affection of the inner coat of the intestine, and the consequent enormous transudation of serum. The instances which are said to have occurred, of individuals suffering from syncope, icy coldness of the extremities, cramps, etc. becoming livid, and perishing without having vomited, or shown any symptoms of gastric intestinal irritation, and at whose obduction no characteristic lesions could be discovered in the bowel, have been rarely observed in the later epidemics. There is, however, nevertheless much difference of opinion in regard to the relation the other symptoms of asphyctic cholera bear to the excessive discharges. Many who consider the intestinal lesion as constant are by no means persuaded that it is the cause of all the phenomena exhibited by the disorder, but believe that the affection of the ileum bears no more important relation to the cramps, syncope, etc. of cholera than the ulceration of the agminated glands in typhoid fever, to the constitutional disorder. The consideration of the truth of this opinion, we will discuss in another place. The asphyctic cholera is developed in the majority of cases from an attack of cholerine or a cholera diarrhœa which has lasted several days. In this form of the disorder, the entire contents of the intestine appears to be poured out at once. The patients are astonished to find the vessel which they have used almost full of a watery fluid, but few of them understand how great is their danger and delay to seek help on account of a simple, painless diarrhœa, although on other occasions they would consult a physician about any insignificant attack of colic. The discharges, however, become quite frequent, and are singularly copious, assuming soon the appearance of rice water, losing smell and color. Many patients after the third or fourth discharge feel utterly prostrated, and some even faint away. They become too weak to use a vessel in bed without assistance. At this stage begin the painful cramps in the calves of the legs and an agonizing thirst, increasing with every evacuation, renders their situation truly miserable. The more,

however, the patients yield to their desire for drink, the sooner the attacks of vomiting are added to the diarrhœa. At first there are thrown up particles of half-digested food, but later a great quantity of yellowish fluid is the only matter ejected. The debility of the patient rapidly increases, the voice becomes husky, and is finally altogether lost, and the cramps returning oftener become more violent. It is impossible to satisfy the tormenting thirst, and there is soon associated to the other symptoms a feeling of anxiety and despair which, with the painful cramps, forms the most distressing symptom of cholera. In the mean time the appearance of the patient has become fearfully altered. The eyes are sunk in their orbits, the nose has become sharp, the cheeks are wan and fallen, and the skin on the fingers is shriveled. If the skin on the back of the hands is pinched into a fold it remains so for a long time, and only slowly resumes its natural position. The whole body, and especially the lips and genitals have become livid. An hour after the first rice colored evacuation the radial pulse is in many patients no longer to be felt, and at last even the carotids cease to beat perceptibly, and the impulse and tones of the heart become indistinct. As the circulation grows more limited and no warm blood reaches the surface of the body the temperature of the skin, especially on uncovered places, sinks down to that of the surrounding atmosphere. The sick seldom complain of headache, but often of dark spots before the eyes, of singing in the ears and of dizziness. The reason is not lost, but most patients fall into an apathetic condition; they, it is true, complain of pain and distress, but seem indifferent to the danger and reply to questions slowly and unwillingly. The reflex irritability is lessened so that in severe cases the sharpest vapors cannot produce sneezing or coughing. It cannot be wondered at that in the first epidemics, even those physicians who regarded the colorless stools as pathognomonic of the disease, and who kept their patients on the strictest regimen, and directed their treatment more particularly to the intestinal affection, did not nevertheless recognize it as the cause of all the other symptoms, and the original source of danger. The rapidity with which the patients altered in appearance, the severity of the other symptoms, the disturbance of almost every function, the disappearance of the pulse, the coldness

of the surface of the body, the suppression of urine, the loss of voice, the facies cholerica, the circumstance that numerous patients were admitted into the hospitals in this condition who, after their entrance, had neither vomiting nor diarrhœa, and from whom it could not be learned whether they had previously had discharges from the alimentary canal, all combined to lead the unsound theories regarding the nature of the disease. It was, it is true, acknowledged that the poison produced a diseased condition of the intestinal coats, but it was also supposed to exert an equally direct influence on the blood, nervous system, and in fact all the organs, and even in rare cases, to spare the intestine altogether. The attention, too, of the physician in the more extreme cases, is distracted from the intestinal lesion by the very violence of the other symptoms and by the rapidity of their development. It is my opinion, however, that all cases alike, the more severe as well as the more simple, are to be explained in the same manner. The immediate consequence of the enormous evacuation of serum, the loss of which it is impossible immediately to supply, is the concentration of the blood by the abstraction of its water and salts. As long as this concentration is moderate in degree, it exercises no very injurious influence on the circulation nor on the organism generally. The thirst, however, becomes increased and the secretion of urine diminished. But when the destruction of the epithelial lining of the intestinal wall is extensive, it gives rise to the threatening symptoms which characterize the stage of collapse just as a burn of the second degree, though of no importance when circumscribed within a small compass, is dangerous to life when it is spread over a large surface. The blood robbed of its fluids, eagerly absorbs fluid from the interstices of the tissues, which consequently become dry and reduced in volume. Even morbid accumulations of fluid in the cavity of the pleuræ in the joints and cavity of the peritoneum, to effect the absorption of which the medical art has been in vain exhausted, disappear under the influence of the disease. The surfaces of sores and eruptions secreting fluid become dry and like parchment. From the lack of the necessary fluids, all the secretions, that of the salina, of the tears, sweat and urine, are suppressed. The excessive weakening of the heart's action on which depends the diminution of its im-

pulse and tones, and the gradual disappearance of the pulse, is probably caused by the depressing influence which all sudden illnesses, and especially those of the abdominal organs exert on the vegetative nervous system, and particularly on the cardiac nerves. I have witnessed, not unfrequently, this same symptom after the perforation of the stomach by a chronic ulcer, and have known the perforation of the duodenum with resulting peritonitis to be diagnosed as cholera sicca. On the other hand it is not impossible that the disturbance of the circulation in the walls of the heart is to blame for the paralysis of that organ.

The amount of fluid necessary to enable the blood corpuscles to pass readily through the capillaries, is, after the enormous evacuations of cholera, no longer present, and consequently the circulation through the capillary system is rendered difficult and laborious, if not altogether impossible. The processes of nutrition and absorption which are indispensable to the performance of the functions of the muscles as of all other organs, being thus interfered with the muscles of the heart cease to contract normally, and paralysis ensues. The livid color assumed by the fingers, lips, genitals, etc., is caused in cholera as in other diseases by the accumulation of the blood in the venous system. It is, however, heightened in this disorder by the concentration of the blood and the delay in the circulation. If it is resolved to bleed the patient, the cut is followed by a jet of dark blood from the distended veins, but the stream ceases almost immediately to flow, and only by rubbing and pressing in the course of the veins, can a few more drops be made to exude from the orifice. When the circulation is restored the lividity disappears, though the blood retains its venous hue for some time after the beginning of convalescence. The sense of anxiety and distress almost always felt in the stage of collapse can be referred to the effects of the concentration of the blood on the circulation. The change of blood in the pulmonary capillaries is just as necessary to the act of breathing as the change of air in the alveolæ, and an obstruction of the circulation of the blood in the lungs will as readily cause a sense of suffocation as the obstruction to the entrance of air into the bronchi. It has been proven by experiment that notwithstanding the free play of the thorax and the unobstructed entrance of air into the lungs,

there is an abnormally small quantity of carbonic acid gas exhaled by cholera patients, a proof that the respiratory acts are improperly performed. The asphyctic cholera has an acute course. Many die in six, twelve or twenty-four hours from the commencement of the disease, and it is seldom that it lasts longer than two days after its full development. Sometimes the discharges cease a short time before death, and one must be on his guard lest he should give a favorable prognosis founded on the disappearance of this symptom for the transudation of serum though the intestine has not ceased, but the muscular walls of the bowel have become paralyzed, and are no longer able to evacuate it. In these cases death takes place quietly, and the "death rattle" heard in almost all other mortal affections, is here wanting.

In cases of recovery the discharges gradually decrease in number, and are less copious. The fluids taken into the stomach are no longer vomited, and there are signs of their absorption into the blood. The capillary circulation is restored, the pulse re-appears, at first in the carotids, and then in the radial arteries, the skin regains its accustomed moisture, and the face its ordinary expression. The disease from the stage of collapse passes to that of re-action. There are sometimes in this stage no characteristic symptoms. The patient passes immediately to convalescence. The asphyxia having passed away, the stools acquire their normal consistence and color, and everything indicates the regeneration of the epithelial covering of the mucous membrane. The disturbance of the circulation has led to no serious alterations in any important organ, though the first urine passed by the patient is almost always albuminous. In other cases, where the intestinal injuries are less quickly repaired, the enormous rice water stools are replaced by a moderate diarrhœa of very thin, offensive and greenish discharges, the pulse continues small and the temperature of the extremities low, and the patients are in danger of exhaustion from the continued affection of the alimentary canal. It is rare indeed that a new development of the disease occurs, but after an incomplete re-action, there is developed the so-called cholera typhoid, and often after the diarrhœa has entirely ceased, there is a very protracted convalescence.

Another form of the disease is exhibited when, after the stage of collapse, there is an excessive re-action, when the pulse becomes

abnormally full and hard, the temperature of the skin from a very low rises to a very high degree, the cheeks become flushed, the eyes injected, and symptoms of congestion of the brain and other organs are noticed. It is difficult to account for these phenomena. It probably depends upon the still abnormal condition of the blood and the consequent obstruction to the circulation in the capillary system. This stormy re-action, it may be remarked, passes not unfrequently into the typhoid state, though at other times it is followed by convalescence. Cholera typhoid is the name given to certain sequelæ of cholera. From the fact that it is observed only after the severest forms of the disease, we may infer that it does not depend upon the direct action of the poison, but upon changes produced in the system by the long duration and severity of the disorder. It is easy to understand how the obstruction of the capillary circulation, and the consequent interruption of the processes of nutrition, if continued for several hours or a day, would cause most serious changes in the structure of many organs of the body. These injuries are indicated in some instances only by great and lasting debility. According to my experience, the acute nephritis and the resulting obstruction of the tubuli uriniferi and the retention of urine, though often found as sequelæ to cholera, are by no means constantly present, nor as many writers assert, the cause of all the other symptoms of the cholera typhoid. We may diagnose the nepritis and the uræmic intoxication when the urine, after the asphyxia has passed away, continues to be suppressed, or when the scanty urine contains for days afterwards albumen and fibrinous casts, when the patient begins anew to vomit, complains of great headache, and later, falls into a state of coma, or into epileptic convulsions. In such cases the skin is often found to be incrusted with the crystalized urea.

There is still another class of patients in whom the urine, on the second or third day after the asphyxia has passed away, is voided free from albumen, and in even abnormally large quantities, but who, notwithstanding, fall into a state of apathy, with dry, discolored tongue, muttering delirium, frequent and irregular pulse, and high fever. They slip down to the foot of the bed, and in all respects present an exact picture of typhus fever. They usually suffer besides from diarrhœa with very offensive stools, and though

unmoved by the loudest noise or other irritation, show signs of pain and distress if the abdomen be subjected to pressure. There are cases in which diphtheritic inflammation has followed, as is not infrequent the catarrh of cholera. Patients thus affected usually die with symptoms of complete exhaustion. Diphtheritic inflammation of the genitals, pneumonia, pleurisy, or any other severe inflammation supervening on cholera exhibit symptoms not much dissimilar. In all such cases the typhoid symptoms overshadow those peculiar to the local trouble. There are, finally, many cases in which neither during life nor at the obduction, it is possible to find any local lesion to explain the exhausting fever which resulted in death.

Treatment.

I will not attempt to detail the police regulations by which we can hope to prevent the spread of the disease, and will only say that the quarantine, declared useless after the earlier epidemics, was found in the Mecklenburg epidemic of 1859, to afford protection from the disease when conducted with the necessary energy and thoroughness. As a person suffering from an apparently slight diarrhœa, may convey the poison to a healthy place, and can thus cause the outbreak of a murderous epidemic, (to afford complete protection,) it is necessary to shut off all intercourse with the outer world. It would take up too much space to enumerate the measures that have been adopted in cities where the cholera has raged for its prevention, and we must content ourselves with noticing the principal points. As the generation and diffusion of the poison are favored by the existence of heaps of refuse matter, foul privies, and filthy gutters and sewers, every effort should be used to have all streets, alleys, privies, drains, etc., thoroughly cleaned and disinfected. *Cholera stools ought never to be emptied into necessaries and water closets in common use.* Dr. Rich, when called as city physician to Tribods, a small place on the Mecklinburg frontier, in the cholera epidemic of 1899, obtained from the police authorities an order that a solution of sulphate of iron should be poured into each and every privy in the place, and to render the execution of this measure easy to the inhabitants, kettles filled with the fluid were carted before every house. Physicians should in cholera epidemics demand of the city officials the establishment

of sufficiently large and convenient hospitals in which patients with suspicious diarrhœa, discharges may be separated from those in whom the disease is manifested in an unmistakable form. They should further urge the necessity of a supervision of the restaurants and saloons frequented by the poorer classes, and the propriety of publishing simple and short directions for distribution among the people in which they should be especially warned of the danger of neglecting a diarrhœa. The prophylactic measures to be recommended are as follows:

1st.—For those who are able, to move away from infected places. They should leave early, travel far inland into the country, and should not return before the complete subsidence of the epidemic.

2d.—Those who are obliged to remain in the midst of the disease should be enjoined *never to use a strange privy.* They ought also to be careful of their diet, eating food that is simple and easy of digestion, and avoiding all food or drink which experience has shown to cause looseness of the bowels. It is not however advisable to change suddenly a mode of life which has become habitual, and those accustomed to stimulants may be allowed the use of red wine and of bëer, which is neither very young nor sour, in moderate quantities. Every irregularity and excess should be strictly vetoed.

Finally, every one should be urged to send for a physician as soon as they are attacked with diarrhœa, however slight, and until the doctor arrives, to go to bed, keep warm, and drink several cups of hot coffee or herb tea. It cannot be denied that a vigorous sweat often wards off an attack of cholera. At least in every epidemic there are observed cases in which individuals are seized with copious evacuations, great debility, cramps, and even with vomiting, but recover without further development of the disease after drinking hot teas and sweating a few hours in bed. Experience also teaches that the disorder in such cases may develop into the severest of asphyctic cholera if the perspiration is too suddenly checked, and it is well to forbid the patient to leave his bed until he has had a normal discharge from the bowels. In case there should be delay in finding a physician, the patient should take small doses of opium in the form of paregoric or laudanum. It is one of the best remedies used in the disease, and is more effective

if employed in the earlier stages. The Russian Cholera Drops are very celebrated; they consist of

℞ Tinct. valerian aeth. ℥ ij.
Vin. ipecac ℥ i.
Tinct. opii camph. gtt. xx.
Ol. menth. piper gtt. v.
M Every hour xx drops.

If the most careful prophylactic measures are often incapable of warding off the disease, we can still less hope to combat it with invariable success after it has once become fully developed. At the end of almost every epidemic, when the disease is no longer so violent as at first, physicians, as well as charlatans, sing the praises of certain specifics; but their fame has never lasted longer than the first week of a new epidemic. We have no specific remedies for the cholera, and are obliged to treat the disease symptomatically, and we will have the better success the more thoroughly we understand the morbid conditions on which the symptoms depend. The hot baths and hot drinks by which, in the earlier epidemics, physicians sought to raise the temperature of the body in the stage of collapse, while they refused the smallest drop of cold water, the venasection by which they tried to relieve the paralysis of the heart, were all false treatment, nor would they have been employed had the pathology of the disease been as well understood as now. The venasection could not possibly counteract the concentration of blood upon which depends the heart's paralysis, nor could hot applications bring the thickened blood to the surface. Hot tea, too, which is more easily vomited than any other drink is less adapted *to this stage of the disease* than small quantities of cold water. The treatment must first of all be directed against the morbid processes going on in the intestine. We must endeavor to control the enormous evacuations of serum, the source of all the other difficulties. If we were able in the stage of collapse to cause the patient to break out in a sweat we should injure instead of help him, as more fluids would then be extracted from the blood. We must on the contrary endeavor to replace some of the water drawn from the circulating fluid. The next indication is, then, to stimulate the flagging powers of the heart. We are not able to explain how opium, our last refuge in this and all other diarrhœas operates, and are ignorant whether it merely controls the move-

ments of the bowels or also lessens the secretions, but almost all physicians though satisfied that it cannot always check the discharges of cholera, nevertheless resort to it again and again because one or two cases have seemed to recover under its use. I, myself, am partial to its exhibition, and give it either as Dover's powder or in the form of a tincture. Should the patient under the influence of this drug improve, it is allowable to continue it in small doses until the passage of a firm stool proves that serum has ceased to pass through the bowel. Should, however, notwithstanding its continued use, the discharges continue unabated, and the patient grow steadily worse, should his skin grow cold and his dejections lose all color, it is not in my opinion right to persevere in its use. In such cases I have found calomel in one grain doses and cold water applied to the abdomen to render the best services.

Levy in Breslau, has recommended the exhibition of argentum nitricum, but although a priori in favor of its use, I have not found it of much service in the disease. The second indication, i. e. to supply the missing water to the blood, is best fulfilled by giving small quantities of ice water to drink, or by letting the patient swallow small pieces of ice. Large quantities of fluid, especially if warm, are apt to be ejected by the stomach. It can be safely asserted that the cholera sick have suffered less since they have been allowed to drink cold water than when, notwithstanding their agonizing thirst, they were either forbidden drink altogether or given only hot tea. As soon as the discharges cease and the walls of the stomach and intestine become again capable of absorbing fluids, the circulation begins to return to its normal state, and the heart often without any stimulation in a few hours beats with more than its proper force. But from this fact we should by no means draw the conclusion that the exhibition of stimulants is superfluous. On the contrary as soon as the pulse begins to lessen, and the stage of collapse approaches, they are urgently needed. Every effort should be made to preserve the heart from complete paralysis until the intestine recovered from its diseased condition. Among stimulants, iced champagne whith, while stimulating the nervous system exerts no injurious influence on the coats of the stomach and intestine, is more preferable than most others, especially than the aetherial oils carbonate of ammo-

nia, and other sharp substances. In the poor practice, rum should be given in water. Sometimes a cup or two of strong, hot coffee, may be given with advantage between the draughts of water. The coffee will be, after a little, ejected, but not until the pulse has become stronger, and the temperature of the skin somewhat higher. Should the discharges have ceased, but the continued asphyxia prove that their cessation was due to the paralysis of the muscular walls of the bowel, stimulants are urgently indicated, and the best sign of their action is the recurrence of the evacuations. Against the painful cramps of the legs, friction of the skin with spirits of mustard may be used with benefit, but sinapisms should never be applied, as they are apt in the excitement of the occasion to be left on too long, and thus to cause obstinate and painful affections of the skin. It is of course impossible to give the patient nourishment during an attack of cholera, but after reaction has taken place, the greatest care should be taken in the preparation of food. The diet should consist of diluted milk, broth and toast, until the passage of a normal evacuation indicates that the alimentary canal is again prepared to perform its functions. Any irregularity of diet may be followed by the most serious consequences. It is impossible to indicate the treatment which may be necessary in the various sequelæ of cholera. Each case will have to be analyzed and treated by itself.

ART. III.—*Abstract of Proceedings of the Buffalo Medical Association.*

Nov. 8th, 1865.

The Association met at 7½ o'clock, the President, Dr. Ring, in the chair. Present, Drs. Ring, Strong, Congar, Cronyn, Whitney, Gay, Rochester, Miner and Johnson.

The report of the last meeting was read and accepted.

Dr. Cronyn observed that he was not sorry to have given the Secretary the trouble of reading the minutes of the case reported by Dr. Congar, for it seemed to him that an explanation more satisfactory than any given for the immediate cause of "Hemiplegia," in this case should be sought; that the hemorrhage, of itself, would have been sufficient to produce an epileptic attack, and a very temporary paralysis, there is no doubt, but it would be general and

of so short duration that the mere loss of blood, and its shock could have but little to do in the continuance of an Hemiplegia of week's duration. Had at present two cases of "Hemiplegia" in females, occurring in one as the result of an altercation with a neighbor; the power of utterance was partially lost, and partial loss of power in both arm and leg of right side. The other is the result of an epileptic attack. It was attended with entire loss of consciousness for about thirty hours, which, on passing off, left her unable to articulate, with complete hemiplegia of right side. She is slowly recovering her power of speech, but not of side. A case more analagous to the one read, occurred to him last summer, in the person of a young woman in her first confinement; as the head pressed upon the perineum, nothing was anticipated but an easy and speedy delivery. She had a violent convulsion—made application of forceps immediately—and the supposed cause of the irritation removed—there was no return of convulsion, comparatively little loss of blood; the next day there seemed nothing remarkable about the case, save that she complained of her right arm and leg being sore, and to some degree powerless. This was attributed by those around to her efforts at pulling and pushing, during a portion of her labor; but a day or two put an end to such excuse, for it was found that she was completely paralyzed on that side, and the subject of acute "Cerebritis," of which she died within ten days. These cases afford ample opportunity for consideration, each in an apparent state of health before attack, yet each becoming suddenly paralyzed under entirely different circumstances, with evidently the same pathalogical derangement, or change in the cerebro-spinal centres, and which may be explained, very probably, by adopting the different features accredited to the theory of embolism.

He related the case of a boy fourteen years of age, who received a pistol shot accidentally, better than three weeks since. The ball entered the left orbital plate of the frontal bone, and passed directly backwards through the brain, on the plane of entrance, some four and a half inches, where it could be felt by the probe; blood and brain substance escaped freely through the wound. The boy fell, as if dead. He was taken up unconscious, and remained so for some forty-eight hours. His right arm and leg were found

paralyzed, and his left eye very much swollen; his head was ordered to be shaved, and an evaporizing lotion applied to eye and to head, if it became hot; indeed, the directions were to wait and to watch. Consciousness was gradually restored. The right leg has regained much of its power, but not the arm. The external wound was healed, and now, at nearly four weeks, he sits up, eats, and complains of nothing, nor is there anything unusual or observable in his mental condition, save that he sometimes forgets that he asked for a thing, when it is brought to him. This is certainly an interesting case, and involves many questions in cerebral pathology.

Dr. GAY would state, in this connection, that in the case of Mr. Waite, of this city, who was accidentally shot with a revolver, that the ball entered the cranium in the right temporal region, and passed into the brain. At first he appeared wholly unconscious, but after five or six hours he became fully conscious, and said that at the time of his apparent unconsciousness he knew perfectly well what was going on, and understood what was being said, but was unable to articulate; could not speak or move much. Dr. Gay did not design to report the case, but only to speak of it in this connection, and call attention to the fact that this consciouness still remained.

Dr. MINER remarked that he was sorry to be obliged to modify, in any way, Dr. Gay's report of Mr. Wait's condition. He had just left Mr. Wait's bedside; he found him this evening unconscious, breathing stertorously, and evidently near his end. His appearararance of apparent convalescence had continued up to 1 or 2 o'clock that afternoon. During ten days preceding, his attending physician, Dr. Stork, reported him as having been cheerful and hopeful, with no symptom of danger except some headache; had laughed and joked with his visitors and family, with his usual good feeling.

Dr. ROCHESTER reported an extremely rare dislocation of the patella, as follows: On the evening of the 28th of August, a large and growing lad, of sixteen years, fell, striking his knee on the curb-stone. On seeing him, a few minutes after the accident, he found the righ patella completely dislocated outward, and *turned upon its edge*, standing at right angles with its normal position.

The knee was slightly swollen, and very tender and painful to the touch. Chloroform was given to complete anæsthesia, and two or three unavailing efforts were made to replace the bone, the limb being fully extended, and the foot elevated. Dr. Gay, who was also present, then, by a different proceedure, at once reduced the dislocation; he flexed the leg upon the thigh, and the thigh upon the body, and then extended, and at the same time rotated the limb, pressing, meantime, firmly upon the patella, which immediately slipped into its place, while the limb was passing from flexion to extension. Dr. Rochester was glad to put so rare a case upon Gay the deserved credit of success in the reduction of a dislocation hardly ever met with, and which, when encountered had sometimes baffled some of Europe's most distinguished surgeons.

Dr. Gay wished to call the attention of the association to the use of the sesquichloride ferri, in diphtheria and diphtheritic sore throat. He had, during the last few months, prescribed it frequently in diphtheritic disease, with excellent results. Had made use of it in a solution, consisting of xx grs. of this salt to an ℥ of glycerine, to be given in drachm doses.

Dr. Rochester remarked that the use of a solution of sesqui chloride ferri, in the treatment of diphtheritic disease was not new to the profession in this city; that he and many other members of the profession both here and elsewhere had used it during the last two years. He had used it both as a local and constitutional remedy, and could speak very highly of it as a remedy in the class of cases mentioned.

Dr. Gay said that he was not aware that this preparation of iron had been used by the profession in this city. He had made use of it on recommendation of a medical friend residing in a neighboring city, and supposed its use new to the profession generally. He believes diphtheria to be a blood disease, and that it should be treated as such, and that local remedies are of little or no use.

Dr. Strong remarked that he believed diphtheria should be treated as such. He had treated several cases with preparations of iron and quinine, with marked good effects, and believes that an inteligent use of proper remedies should always be resorted to.

Dr. Miner said he thought this and other forms of iron had been extensively used, both locally and constitutionally, and that

they all possessed at least the merit of not doing any great harm, provided the application to the throat was made with a soft brush, and the sponge and swab avoided. That any application to diphtheritic exudation, either prevented its extension or in any way abridged the duration of the disease, was not probable, and indeed it would seem almost certain that it, like other blood diseases, could not be greatly influenced in its termination by medication. The chief indications appeared to be, as in scarlet fever and other diseases, where blood poison is supposed to constitute the malady, to sustain the strength by all available means, while very little dependence could be placed upon medicine in producing any important modification in the disease itself.

F. M. JOHNSON, Sec'y.

Correspondence.

CINCINNATI, December 15, 1865.

To the Editor of the Buffalo Medical and Surgical Journal:

I am very favorably impressed with Dr. Colterson's remarks on Military Surgery in the main, but in regard to the treatment of hospital gangrene, I desire to say a few words.

My own experience was that the first and most important thing to be attended to was a full support of the vital forces by stimulants and good nourishment, and when erysipelas or gangrene began to make its appearance, it was often arrested by the free use of tinct. ferri chlorid, used internally, either alone or combined with quinine, when the patient was emaciated, tongue dry, and tending to a typhoid condition. The quinine combined with the iron seemed to have a most salutary influence in arresting the threatening trouble. In many of the hospitals, and in fact nearly all of which I could learn in this department, hospital gangrene did not make its appearance to any extent until after the second year, which would seem to indicate that the cause was cumulative, or the result of continuing for sometime in one place, and the fact that changing the patients to new wards or tents out of doors with decided advantage, which was often done, would go far to prove

that the subtle influence accumulated in wards long used for wounds, in spite of the most careful attention to cleanliness. The cases of hospital gangrene, of a formidable character, first made their appeaeance at the Washington Park Hospital, in this city, amongst the wounded from the battle of Stone River, in January, 1863, and we were seldom without them until the close of the hospital in May, 1865.

In the local treatment I used at different times the various popular caustics, but they often failed. The bromine did not give us the satisfaction promised, although carefully applied under the direction of its champion, Dr. Goldsmith. The nitric acid also often failed to arrest the disease, but the actual cautery in the most severe cases always arrested the trouble after the third or fourth application, and with much less suffering to the patient. It was our practice always to put the patient under the influence of chloroform, and apply the cautery freely to the edges of the wound as the diseased action seemed to confine itself to the adipose tissue, and then apply an anodyne poultice until the diseased parts sloughed off, after which it was treated as a simple ulcer. I regard the actual cautery as by far the most valuable escharotic and perfectly safe in the hands of the judicious surgeon, of anything now within our knowledge, and since the days of chloroform, like the knife, it is divested of much of its formidable character.

Yours, O. D. Horton.

Racine, Wisconsin, Dec. 12, 1865.

Mr. Editor:—In the December, 1852, number of the *Buffalo Medical Journal*, is an article upon Cholera, in which I suggested the external application of cold water, as an adjuvant in the remedial management of that disease.

During the prevalence of the disease in Chicago in 1854, I had ample opportunity to fully test the efficacy of the practice, which more than realized my expectations. In numerous cases, even in collapse, when the other usual means had failed, I suceeeded in bringing about re action and saving the patient.

My method was as follows:—The patient being divested of all clothing, except the chimise, in the case of females, was placed

upon the floor, or in a bathing tub, the head and shoulders elevated, and thirty or forty gallons of *cold* water *dashed forcibly* (half a pail at a time) over the head and shoulders, down the spine, and upon the chest. The patient was then immediately placed between blankets and rubbed gently with dry mustard. The following case will illustrate:

Mrs. L——, the wife of a well-known citizen of Chicago, was under the care of the late Dr. Cheeny, who, finding her sinking in spite of best efforts, consulted me. Her condition was apparently hopeless, she had frequent involuntary characteristic dejections from the bowels; her stomach rejected everything taken into it; there was intolerable thirst and violent spasm of the voluntary muscles. Her respiration was labored; pulse scarcely perceptible at the wrist; the surface and extremities cold; the eyes and features shrunken. She was ordered an enema of tannin and lead in cold water, and immediately subjected to the cold affusion followed by friction with the mustard, whereby warmth was restored to the surface and extremities; the vomiting and cramping ceased; there was no dejection for several hours; the respiration became free, pulse was fuller and more distinct, the thirst was entirely relieved, and from that moment she convalesced.

I could cite many other similar cases with like result, to which many physicians and other citizens of Chicago will bear testimony. But my object is only to call the attention of the profession to the remedial measure.

In this connection I will state that I have found no internal remedy more efficacious in controlling serous diarrhœa, especially that preceding, or rather initiatory of cholera than the extract of *nux vomica*, I have usually prescribed it in combination, thus:

℞ Ext. nucis vomica, alch. gr. iv.
Pil hydrargyri vel.
Hydrarg. chlo. mite gr. viii.
Di-sulph. quinia gr. x.
Opii pulv. gr. ij, c. iv.
Camphora pulv.
Capsici pulv. aa. gr. iv.
M. ft. pil. viii.
Sig. one or two every four hours.

My brother, the late Dr. E. A. C. Page, who was, in 1849, connected with one of the New York City Dispensaries, and saw a

good deal of cholera in that city, suggested the annexed formula:

℞ Spts. ammon, arom.
Ether sulph.
Tinct. kino.
Tinct. capsici, aa. ℥ ss.
Tinct. opii ℥ iij, c. iv.
Spts. mentha pip. ℥ i.
Aqua camphora ℥ ij ss.
Syr. rhei arom. ℥ ij.
Signa. M.

For *diarrhœa* one or two teaspoonsful in water, every three or four hours; for *cholera* a table-spoonful every half hour.

So efficient has it proved that it is prepared and vended as Dr. Page's Cholera and Diarrhœa Elixir, by our druggists, and may be found in almost every family in this vicinity. My own experience in its use warrants me in recommending it as a proper medicine to be kept by familics, to be used in the incipiency of an attack of cholera until a physician can be consulted.

Yours, JOHN L. PAGE.

Editorial Department.

Expectant Medicine.

In our last issue we noticed that the Massachusetts Medical Society have offered a prize for the best dissertation upon "*Expectant Medicine—the extent to which it is practiced at the present day, and the modes in which it is disguised or counterfeited.*" We would call attention not only to this opportunity of obtaining a prize, but to the other advantages it affords; and it might be well if the attention of some outsiders who do not read medical journals very much, could be attracted, for we believe them, more likely than any attentive readers, to be benefited by attention to this subject; it is eminently worthy the attention of practitioners generally, whereby some benefits might accrue from seriously thinking upon it, even though conclusions were unwritten and prize unobtained. We have considered our own chances for a prize, and were it not for the fact that "prize essays" are to be furnished monthly, for this Journal, to obtain which the "expectant" plan has never

proved successful, we should most certainly forward our manuscript, of course "keeping dark" until after the prize was awarded.

Expectant medicine and our means of disguising it, is a free translation we prefer to make of the original text, not being however, positively informed that this is literal rendering of the prize proposition. Expectant medicine is understood to mean, giving nothing, administering it in the form of a pill or powder—pacifying the patient while nature cures the disease. That such a subterfuge has ever been practiced by the members of an honorable profession, we are sorry to be obliged to confess, but we have no "modes of disguising it." The impostor who pretends to cure disease with inert or absurd compounds we deridingly call a quack, and despise him as we do a thief or pickpocket. If physicians pretend by words or actions, to cure disease which they know terminates spontaneously in recovery, and administer inert and useless remedies to cover a truth they foolishly desire to conceal, in what do they differ from the mountebank and charlatan? Do physicians hesitate to tell their patients the truth concerning their maladies and the value of remedies in removing them? Are they not ready to go to them, with the glad truth, that nature favors their recovery, rather than whine out a doleful dependence upon drugs? Sometimes it might appear best for patients not to know the whole truth as to the nature of their diseases; but if we withhold opinions we deem better not to express, is it any reason for expressing others which we do not entertain?

Late in the history of medicine it was discovered that many diseases disappear without the aid of drugs, and that but comparatively few which have not this natural tendency to recovery can be thus terminated by medicine. This truth has been covered to some extent from a fear that medicine would suffer in its reputation for good; and thus one of the most grand discoveries ever made, and, withal, one which affords the strongest confidence to the educated physician, has been kept back from the people, and when they have "asked bread, we have given them a stone." This tendency of disease to terminate in recovery is one of the central truths of the healing art, around which a great many lesser truths cluster, and upon which they depend. That medicine is almost always capable of affording some relief, and is indispensable to the comfort and

BUFFALO
Medical and Surgical Journal.

VOL. V. JANUARY, 1866. No. 6.

ART. I—*Transactions of the Medical Society of the County of Kings. Specimens and Cases.*

MONTHLY MEETING, JULY, 1865.

Tuberculous Disease of the Foot.

Dr. Stiles presented a diseased *foot*, removed from a woman, aged twenty years, and an inmate of the Kings County Hospital for four months, having been for one year previously, under the care of a physician in Brooklyn. Shortly after admission an intense inflammation set in, in the affected part; this, however, gradually subsided, but not until *sinuses* had formed, which communicated with cavities in the foot. The subsequent treatment was directed principally to the general system, but the patient became weaker, and amputation was decided upon. On examining the amputated foot, found a *tuberculous* disease of the astragalus, a disorder that occurs but rarely in that bone. In the anterior portion of the astragalus and os calcis was a cavity lined by false membrane, and connecting with this were numerous sinuses all over the foot. In this case had a probe been introduced, no dead bone could have been felt, owing to the presence of this false membrane. There was no disease of the tibia. The suppuration was so profuse that the patient would have died had not amputation been resorted to. Syme's operation was talked of in this instance, but it was thought inapplicable.

Dr. Enos briefly referred to the case, and thought that Syme's operation might have been successful.

Dr. Wm. Otterson remarked, that in civil life Peregoff's operation, in these cases, might be resorted to with success; but among soldiers, whose constitutions were more or less feeble, and their vitality impaired, it rarely succeeded. In the present instance, the patient being so weak, and Syme's operation being so low

down, he thought it would not be successful; the parts would not heal.

Dr. Minor thought that Syme's operation might have been first resorted to, and then if the tissues were found diseased, the operation might be performed higher up. If success attended the first operation, the patient would have a larger stump, and if the peroneal artery were left long, it would prevent a great deal of sloughing.

Rupture of the Heart.

Dr. Speir presented a specimen of rupture of the heart. On opening the pericardium a large clot was found enveloping the heart, and on removing this, a little blood spirted out of a small opening, which communicated with the left ventricle. The heart was hypertrophied and fatty, and at the point of rupture the wall was very thin, and exceedingly fatty. A few of the columnæ were ruptured, and there was calcification of the coronary artery. Atheromatous deposits were also found.

Dr. Enos stated that he had been in the habit, for some time back, of tapping this man for hydrocele, in his office. His attention had never been called to any trouble about the heart. About a week ago he was sent for in haste, but on arrival found him dead. On enquiry found that the man had come home that evening, complaining of feeling a little chilly, and soon afterwards fell down and expired. He had been lifting a little that day, and complained of feeling tired.

The question here recurs, did the *lifting* cause this small rupture? He thought it strange that this man should have had such an amount of disease of the heart, and still not complain of it.

Dr. Stiles referred to a similar case reported by Cruvellier, where there was a large mass of fat on the heart, giving it a yellowish appearance.

MONTHLY MEETING, OCTOBER, 1865.

Valvular Disease of the Heart.

Dr. Stiles presented a specimen of endocardial trouble. The patient had been suffering for six months from disease of the heart,

and when admitted into the Kings County Hospital, the dyspnœa was very distressing. There was slight swelling of the lower extremities. There was dulness on percussion for the space of three inches above the nipple, and auscultation revealed the double bellows murmur, but no rasping sound. The murmur was very slight with the first sound of the heart, but very distinct with the second. The man had not had any prior rheumatism. He died suddenly on the 14th instant. On post mortem found a perforation of one of the semilunar valves; to this cause can be attributed the bellows murmur. One of the semilunar valves was enlarged, the others small.

Typhoid Fever.

Dr Stiles also related the following case: About three weeks ago a man was admitted into the Kings County Hospital with typhoid fever, and had so far recovered as to be able to go about the ward. In returning from the water closet last night he fell down, and soon afterwards expired. On post mortem found a profuse ulceration of the colon in the right hypochondrium, and a small perforation of the intestine. There was a large amount of yellow fæcal matter in the peritoneal cavity, and the abdomen was tympanitic. The ulceration in this case had not been confined to Peyer's plates. Between the ulcerations the membrane was greatly inflamed.

Dr. Hutchison presented a specimen of senile gangrene of the foot and leg, from calcification of the arteries. (Notes by Robert Newman, M. D.)

Joseph Stephenson, aged 64, a native of Ireland, for 24 years a resident of this country, was admitted to the Long Island College Hospital, Brooklyn, March 10, 1864, with dry gangrene of the left lower extremity. He stated that he had always been healthy, but for the past four years very intemperate. On the 20th of February ult., while returning home intoxicated, he fell several times, once hurting himself so severely that both he and those who came to his assistance supposed the leg to be broken. On the following day he noticed a slight contusion on the left leg an inch and a half above the external malleolus, and felt a numbness and coldness in that foot. When admitted to the hospital March 10th, the entire

foot and a small portion of the leg were black, dry and shriveled, resembling closely the appearance presented by a dried mummy. Its condition at that time is well shown in the specimen. The gangrene extended somewhat higher upon the anterior than upon the posterior portion of the leg, and formed a distinct line of demarcation. The leg was enveloped in cotton batting, supported by a bandage. He was given beef-tea and the most nourishing food, ale and ℥ ij of whisky per diem with opiate.

On the 18th the line of demarcation being completely and distinctly defined, and the general health of the patient not being likely to improve, it was decided on consultation to amputate the leg. This was done by Dr. J. C. Hutchison, Professor of Surgery in the presence of the medical class. The leg was amputated at the point of election, four inches below the knee, by the flap operation. There was less than an ounce of blood lost, the only hæmorrhage being from the cutaneous vessels. The large arteries were in a state of calcification, and so completely blocked with lymph as not to bleed. This state of the arteries gives sufficient explanation as to the cause of the gangrene. Though scarcely necessary, a ligature was applied to the anterior tibial artery. The flaps were joined together by silk sutures and adhesive strips. The flaps and limb were cold at the close of the operation. Hot sand bags were placed about it until the limb regained its normal temperature. March 28, gangrene set in at two points on the anterior flap. Pulse 100 and feeble; patient taking food and stimulants freely. On the 30th the gangrenous portions of the flap began to slough, laying bare the tibia. The wound continued to slough for ten days following. The prostration gradually increasing until the afternoon of April 13, when he died, twenty days having elapsed since the operation.

From a post-mortem examination held the following morning, it appeared that the gangrenous slough had extended nearly to the knee. The femoral artery and sheath were surrounded by masses of fat intermingled with calcareous deposit. When first removed it had the appearance of being badly injected with plaster of paris, and was, as is shown by the specimen, in a state of calcification.

In the specimen the arteries of the leg have been dissected from the point of amputation nearly to the gangrenous portion, and

present the appearance of mere bony tubes or cords. The anterior tibial was completely calcified and occluded, and the posterior tibial nearly so. The peroneal was much enlarged, was also diseased, but the most perfect. The left ventricle of the heart was slightly hypertrophied, the aortic semilunar valves thickened, one segment gaping widely. Atherometous and calcaneous deposits were found in two valves; the aorta was normal. There was no lesion in the other organs.

It is evident that the gangrene was caused in this case by the obstructed condition of the trunks of the vessels, which existed for some time before the death of the part took place. The existing cause was probably the slight inflammation produced by the contusion before referred to, which disturbed the balance of the circulation in the already weakened part to so great an extent that gangrene ensued.

Dysentery.

Dr. Stiles presented three specimens, selected from fifteen cases of dysenteric affection. In general he found that the ulcerations had destroyed the mucous membrane down to the cellular tissue. Sometimes the membrane was perforated like a sieve; at other times it looked as if shot were scattered under the membrane. In one case there was no ulceration, but the folds of the membrane were sphacelated. When these folds slough, the case terminates fatally, and in his opinion a few hours is sufficient to convert a curable into an incurable case. The thickness is in the muscular coat, and in the cellular tissue, and not alone in the sub-mucous cellular tissue. There was no lack of secretion of bile, but the excretion of it was deficient.

Dr. Reese inquired how it was that death took place so suddenly from the perforation of the bowel in the case of typhoid fever?

Dr. Bell inquired why sphacelus of the folds of the mucous membrane should necessarily make a case incurable? He thought there might be very extensive ulceration of the mucous membrane, and possibly even of the muscular fibres of the intestine, and recovery still take place.

Dr. Enos agreed with Dr. Bell in regard to recoveries from extensive ulcerations of the intestines, and cited a case in whic

stricture of the rectum resulted from dysentery, yet the patient recovered. He looked upon the heart case as very interesting, from the fact of the semilunar valve being so large; and in the case of typhoid fever it seemed strange that the ulceration was so scattered, and not, as is usual, confined to Peyer's plates.

Fibrous Tumor of the Uterus.

Dr. Hutchison presented a fibrous tumor removed from the uterus. The lady was forty years old, had been married eight months, and was, until recently, in the enjoyment of fair health. About the first of May she was attacked with severe pain in the right side, and was seen soon afterwards by her family physician. In a week afterwards an abdominal tumor was first noticed. He saw her on the 20th of May, when the tumor was well marked, extending across the abdomen from the pubes to near the umbilicus. It was hard and somewhat movable, and could be traced down into the pelvis. A female catheter was introduced, but the handle had to be depressed, before the instrument would enter the bladder, indicating that the organ was spread out from the presence of this tumor. Hence the reason of the frequent micturation. In passing the finger into the vagina, the os was felt, but it was not definitely ascertained to be the os, until a sound was passed in about five inches. The tumor could also be felt in introducing the finger into the rectum. The lady had not menstruated for ten weeks, but there were no evidences of pregnancy. Was disposed to think, at the time of the examination, that it was a fibrous or ovarian tumor. He had been sent for to operate on the case, but thought it judicious not to interfere. She suffered considerably, and was only relieved by the administration of chloroform and subcutaneous injections of morphine. She died from nervous prostration.

On post mortem found the tumor to weigh 4½ pounds. It was examined under the microscope, and found to be fibrous in character. He did not think that the tumor was of such rapid growth as to attain its present size in three weeks; on the contrary, he imagined that it had been growing for some time before it was detected.

Phosphatic Calculus.

Dr. Hutchison also presented a phosphatic calculus removed from the bladder of a child, three years old, who had been suffering for one year previously, from the ordinary symptoms of this disease. The bilateral operation was performed; the child recovered. He also presented another calculus, removed from a child three years old. The child was suffering from tuberculous trouble in the system, and while under treatment the physician's attention was drawn to the urinary apparatus. He introduced a sound, and with considerable difficulty detected a stone. The patient was removed to the hospital, but died from the tuberculous trouble, and the stone and bladder were removed after death.

Dr. Stiles did not understand how the fibrous tumor of the uterus could have caused death in so short a time.

Dr. Hutchison thought it was owing to the complete nervous prostration, produced by intense pain and irritation.

Dr. Enos briefly referred to the case of stone, and remarked that the bilateral operation was the preferable mode of treatment.

Blood Poison.

Dr. Enos presented the left humerus of a boy, with the following history: He was in the enjoyment of fair health, and in the early part of the season was attacked with intermittent fever, from which he recovered. For the last two months though not robust, he enjoyed good health. On Wednesday, the 11th instant, he was seized with a chill, and complained of severe pain in the arm. He retained his consciousness, though suffering intensely from the local pain. Dr. Ingraham saw him on Thursday morning, and Dr. Enos had been sent for in consultation on the following Sunday. The boy had had febrile symptoms since Wednesday, and was a little obtuse in intellect—the arm was very much swollen and œdematous. On Sunday morning there was some evidence of vesication, and pitting was quite distinct on pressure. Leeches had been freely applied on Thursday, but with very little benefit. When he saw him he had a rapid pulse, the feet were inclined to be cool, the pupil was contracted, and the intellect rather obtuse, but still he could be roused. He seemed to be suffering a great deal from the pain in the arm, and the whole body seemed to be

sore. The breathing was not particularly disturbed. A small incision was made through the affected part, from which serum escaped, and the pain seemed to abate in the arm. A warm poultice was then applied, and the tincture of iodine painted on the arm. He was ordered quinine, milk punch, beef tea, broth, etc. On Monday the symptoms were not more favorable; thought the pain had abated and the arm was less swollen, still the boy seemed no better, and appeared as if suffering from *blood poison.* Slight spasms supervened and became more frequent during the day. He died at four o'clock this morning.

On post mortem found ill-conditioned pus between the bone and periostium, and also in the tissues, but none was found in the shoulder or elbow-joint. The continuity of the periostium was gone. The left lung was normal, but small points of purulent deposit could be distinctly traced in its substance. The lower lobe of the right lung was engorged and adherent, and in its substance were small deposits of purulent matter. As we had come unprepared to make a post mortem, the brain could not be examined. In conclusion he would add that there was no jaundiced condition of the skin, and no marked *rigors* during the continuance of the trouble. He thought the affection in the arm was a local manifestation of the general trouble.

Dr. Stiles remarked that he had also seen a similar case with Dr. Ingraham, but in this instance there were *rigors*, and intense pain in the calf of the leg, and a jaundiced condition of the skin. The whole cellular tissue of the muscles of the leg was filled with ill-conditioned pus. On the front of the arm was an ecchymosed spot.

Dr. Bell presented a specimen of fatty degeneration of the liver. The patient was taken sick about eight months ago, in California, where he was treated for Bright's disease of the kidneys. He returned home about seven weeks ago, and was attended by Dr. Catlin, who could not say positively that he was suffering from that trouble. The man was tapped for ascites. On post mortem found the kidneys were undergoing fatty degeneration, but not to a fatal extent; the liver was fatty, and only weighed 1¼ pounds.

MONTHLY MEETING, DECEMBER, 1865.

Gun[illegible]und of the Brain; the ball traversing both hemispheres; death [illegible] months later by Scarlatina; specimen presented by Dr. John C. Hutchison.

Lydia Lista, a little girl aged seven years, walked to my office July 4, 1864, with her mother, who stated that her daughter had been injured by a buck-shot fired from a toy cannon by her brother while at play. She fell to the ground immediately on receipt of the injury, and vomited soon afterwards. I introduced a probe into the external wound, which was situated on a level with the top of the right ear and half an inch posterior to it, expecting from the appearance of the child that the shot had not punctured the skull. The probe, however, entered the brain substance and passed in about four inches. There was no opening on the opposite side of the skull. I expressed an unfavorable prognosis and sent the patient home, requesting the mother to call her family physician, Dr. Isaac H. Barber.

I did not see the child again, but Dr. B. has informed me that there were *no symptoms* of any description indicating injury of the brain except some slight vomiting, which continued for two or three days. No treatment was deemed necessary except rest, and she soon appeared as well as ever. She remained in good health, going to school and playing as other children until January, 1865, when she was attacked with scarlet fever and died of that disease on the 17th of that month. She had no symptoms indicative of disease of the brain during her last sickness.

On the day after her death a post mortem examination was made by my pupils, J. C. Goodridge, jr. and J. H. L. Elmendorf. Hearing of the death but a short time before the funeral, and the family positively refusing an examination, being in an adjoining room, made it necessary to conduct it with the utmost secresy and as expeditiously as possible. The brain being removed was brought to my office for examination. The specimen shows by four slightly depressed cicatrices that the ball entered the posterior lobe of the right hemisphere, near its juncture with the middle lobe, and emerging from this it crossed the longitudinal fissure, entered the left posterior lobe and made its exit from the brain upon the opposite side; then traversing the cerebrum from right

to left in a direction backward and upward. The condition of the brain at the points of entrance and exit of the ball were normal. The membranes were healthy. Finding the ball had passed entirely through the brain substance had not fallen back into the original track, and could not be found by such incisions as would not injure the specimen, we assumed that it was imbedded in the skull near its point of exit from the brain, and that in the necessary haste of the examination it had been overlooked.

On examining the brain to-day, December 27, 1865, Mr. Goodridge detecting a point of unusual hardness and a corroded substance, found the ball imbedded in the substance of the brain near the surface an inch and a half in front and half an inch below its point of exit from the left hemisphere. I suppose that after traversing the cerebrum the ball struck the skull of the opposite side and rebounding lodged in the brain at or near where it was at last discovered. The specimen has been in a preparation of corrosive sublimate and alcohol for nearly a year, consequently the ball was much corroded. The portion remaining presents an irregular angular appearance, and is about half its original size.

Recapitulation.—We have then a girl seven years old injured by a *buck-shot penetrating the cranial cavity.* The child *walking* to the office and back home. A *probe passed* into the track of the ball *four inches. No brain symptoms appearing* except slight vomiting, which lasted but two or three days. *Entire recovery,* the child going to school and playing as other children. Subsequent death from another cause and a post-mortem examination revealing that there had *been no disease of the brain;* that the *ball* had *traversed* the posterior lobes of both hemispheres of the cerebrum, and rebounding had lodged in the brain substance, where it had remained with impunity, causing no inconvenience, and had become almost "a forgotten thing."

Mortality in New York.—The whole number of deaths in the city of New York in 1864 was 25,645, an increase of 449 over the previous year, and of 4,401 over 1862. There were 1,425 deaths from typhus and typhoid fevers, and 394 from small pox and variola.

ART. II—*Post Partum Hæmorrhage.* By Edw'd W. Jenks, M. D., *Lecturer on Diseases of Women. etc., in Detroit Preparatory School of Medicine.*

The causes which commonly produce uterine hæmorrhage, especially that variety which attends child-birth, and the most approved methods of its treatment are already familiar to the medical profession. I have neither a new theory or a new remedy to offer, and only for the reason of a recently published article in the "Journal," which seems to deserve comment from some one, I should not attempt to write upon a subject of which so much has been said and written, and one I believe to be generally well understood.

I do not think there are many who will be mislead by the article to which I refer, but there are two classes of medical men who possibly might be. One is represented by the physician who is loose in his investigations, and who is ready to accept any new theory in regard to disease, or adopt any new remedy for its treatment that is commended in medical periodicals, unsustained by a single sound principle or true doctrine in physiology, pathology or therapeutics. The other class includes the young physician, who, just commencing practice, without having had opportunities to prove correctness of theories taught him, or lacking many of the advantages and attainments acquired only by experience and familiarity with disease, *may*, in an evil moment, adopt medical heresies and pursue useless or pernicious treatment, to the injury of his patients and the reproach of the profession.

In the November number of the "Journal published among the proceedings of the Medical Society of S. W. New York," in a paper by Dr. Irwin of Dunkirk, which seems also to have received the sanction of several members of the Society, entitled "Acetate of Lead in Uterine Hæmorrhage in heroic doses," the doses are not measured by grains, but by drachms, as the writer says, "instead of giving it in one, two or three grain doses, I give it in doses of as many drachms, and with as little danger from its use as you will meet with in your two or three grain doses, and at the same time control the hæmorrhage completely and in an instant." Dr. Irwin does not claim originality in instituting this "*heroic*" method of treatment, but attributes its origin to Dr. Joseph Workman,

Professor of Obstetrics in Victoria College, of whom he writes as follows: "In teaching the use of this remedy to his class, Dr. Workman did not attempt to explain the physiological action, but only the medicinal effects, which are those of a *direct emetic*, and an immediate powerful contraction of the uterus, thereby closing the mouths of the bleeding vessels." "The belief of the Doctor is, that it exerts a powerful influence on the sympathetic nervous center, from which you know the uterus is so freely supplied."

Prefacing the above quotation allusion is made to the agitation and distress of friends and attendants in the lying in chamber, and the extreme danger of the patient during the progress of a post partum hæmorrhage, and to some of the means used for checking the flooding as follows: "Cold is rapidly applied to the abdomen by the douche or with napkins, also to the vulva, or perhaps the tampon is applied, the position of the patient changed, the head lowered, etc., but still the hæmorrhage progresses," etc., etc.

Prominent among the objections to the treatment proposed by Dr. Irwin for uterine hæmorrhage are, its uselessness, or at least its inferiority, for it possesses not a single advantage over more rational means, and the possibility of its proving pernicious by its poisonous effects, or by depending upon it as the sole or chief agent for arresting hæmorrhage to the neglect of less objectionable, tried and better means.

Dr. I. also commends this "heroic" treatment in profuse hæmorrhage from any cause except placenta prævia, or in hydatids polypus, etc. While I consider the objection to this treatment equally great in every form of uterine hæmorrhage, yet as the Doctor's paper is principally in regard to his favorite treatment in post partum hæmorrhage, I shall not allude to the treatment of any other form of uterine hæmorrhage, but post partum, which I shall briefly consider in this connection, embodying within it my objection to the plan of treatment commended by Dr. Irwin, also giving a *resume* of more rational modes of treatment, familiar and of undoubted value.

Dr. Irwin says, "having always used the acetate of lead in my practice in doses of one to three drachms without having lost a patient by hæmorrhage from the uterus, I feel it my duty to explain and defend its use," but he gives us no opportunity to judge

of the extent of his obstetric experience, or of the number of cases of post partum hæmorrhage occurring in his practice. There is many a physician with experience of years who has never lost a patient from uterine hæmorrhage. In conversation a short time since with a physician whose name is familiar to every reader of the "Journal," he informed me that during the twenty years of his practice he had not lost a patient from post partum hæmorrhage. Dr. Stebbins of this city, with a large obstetric experience during forty years of medical practice, says he has never lost a patient from any variety of uterine hæmorrhage. Other physicians have told me the same. I have never lost a patient from that cause during ten years of active medical life. Neither have I known of many deaths from that cause either in hospital or private practice. I believe if a careful estimate was to be made, that the frequency or mortality of post partum hæmorrhage would be found much greater in hospital than private practice, in crowded cities than in less densely populated towns and the country.

It has been estimated by Churchill that post partum hæmorrhage occurs once in every one hundred and twenty-two cases of child-birth, and the mortality is about one in six, so that a fatal case by this estimate will occur in between *seven and eight hundred cases of labor.* I believe even this estimate of its frequency to be a large one. Many so-called cases of post partum hæmorrhage, cease spontaneously, without the interference of art, and before designating a case as such, it is well to recollect that every case of child-birth is, or should be, attended with more or less hæmorrhage as a physiological requirement or necessary depletion whereby the distended utero placental vessels are relieved of blood, enabling the uterus to properly contract.

In hæmorrhage succeeding child-birth the blood flows from the open mouths or recently ruptured extremities of the utero placental vessels, for the uterus at this time presents the character of a recently produced wound. When the hæmorrhage continues and becomes profuse, these vessels are open, owing to the relaxation of the uterine walls, or in other words a state known among obstetricians as uterine *inertia* exists. So long as *inertia* exists flooding will continue. To avert the hæmorrhage contraction of the uterus is necessary, for with contraction the utero placental

vessels are closed, and the bleeding ceases, to produce uterine contraction therefore, is the object to which all our treatment is to be directed, and that treatment only which can produce it, will prove of the least service in averting flooding Exceptional hæmorrhage may continue not as the result of uterine inertia simply, but with retained placenta or when some portion is morbidly adherent.

External flooding is easily diagnosed, as it is the only way manifested to the patient and attendants, that hæmorrhage is taking place, and from the fact of its external manifestation is the more readily treated.

Concealed or internal hæmorrhage where from some cause the os uteri is accluded by coagula or detached portion of the placenta, is of a more grave character and oftener fatal in its results. The careless or incompetent obstetrician might fail to diagnose a case of concealed hæmorrhage until too late for the exercise of human skill.

The only benefit I can conceive possible to be derived from large doses of acetate of lead, is, as acknowledged by Dr. Irwin *simply as an emetic*, for he directs a dose of ipecac to be in readiness to administer unless emesis is immediately produced. Sulphate of zinc, or any other emetic that will produce emesis will answer equally as well as the acetate of lead; the act of emesis itself brings into action the very muscles whose services are also required in aiding the expulsion of any intra-uterine substance, and in no other way does it seem possible that the acetate of lead can, as claimed, *instantly* control uterine hæmorrhage, for no remedy taken into the stomach can act as a hæmostatic until the absorbants have performed their function. Remedies acting upon the organic nerves, exciting reflex action may be instantaneous in their effects, of which we have no better example than cold and electricity. To excite the uterus to contraction during post partum hæmorrhage we cannot wait for the tardy action of remedies by absorption, neither do I consider emesis, whether produced by one remedy or another as necessary or important, for in the administration of emetics we not only add greatly to the discomfort of our patients, but if we give acetate of lead in two or three drachm doses, we administer beyond controversy poisonous doses, their only safety resting upon the powerful irritating effect of the lead upon the stomach, whereby emesis is produced.

Dr. Irwin speaks of the tampon as a means often relied upon to arrest the flooding. I know many speak highly of its merits, and rely upon it as an important aid, yet I think it will be found that they usually depend also upon other means, as grasping the uterus through the abdominal walls, thus really superseding the use of the tampon. My own opinion is that in post partum hæmorrhage the tampon possesses not a single advantage over other means, but on the contrary should never be relied upon solely, as its use is liable to produce, for obvious reasons the very thing we wish to avoid, viz: concealed hæmorrhage, and cannot produce contraction. Thus a woman may faint and die, from the uterus being distended with blood, caused by the tampon occluding the mouth of the uterus, while the physician who is relying upon it is congratulating himself upon his success in arresting the hæmorrhage.

It is needless to dwell at any length upon means (familiar to every well informed physician) as efficacious in arresting the flooding following child-birth. Every one has at his command all that in the majority of cases is necessary to stop the bleeding, and without the interference of drugs, although their administration is sometimes required to maintain permanent contraction of the uterus. Friction, pressure and cold, separately and combined, judiciously and knowingly used and applied, will generally arrest the flooding, are sufficiently "heroic," and come nearer to being instantaneous in their effects, through reflex action, than any remedy can, when taken into the stomach.

Friction upon the abdomen, or friction and pressure combined, which I will term kneading; the removal of coagula from the vagina, or possibly from the uterus, will in most instances be sufficient. If the placenta remains and the bleeding continues, let the hand be firmly but gently carried into the uterus, usually in a short time the hand and placenta will both be expelled by the uterine contraction thus produced, but they may be greatly facilitated by gently kneading the abdomen with the disengaged hand, the uterus is thus excited to contract, though reflex action by irritations, both external and external, speedily manifesting itself by the expulsion of its contents and contraction of its walls.

Cold, externally and internally, will excite speedy contraction. I prefer ice to the douche, and would recommend that before being

applied externally, a piece should be put into the vagina, or even the uterus. A quantity of cold water thrown up the rectum will often prove efficacious. The only objection to the douche is the discomfort it may render to the patient before the clothing and bedding are removed. Warmth should be maintained in the extremities by the usual means. In some instances where I have maintained the uterus within my grasp through the abdominal walls, I know I have prevented further flow, which otherwise seemed inevitable, as each time I relinquished my hold, the blood would start, or the abdomen enlarge with the internal flow of blood, until the condition of the system favoring hæmorrhage, (which I shall again allude to,) was overcome. In some of these cases I have administered ergot alone, or combined with opium and brandy as the case required, and applied cold as before referred to, but continued to grasp the uterus until I considered my patients beyond danger of further hæmorrhage. In none of these cases, especially when the patients were exhausted, would I have considered vomiting advantageous, but positively pernicious. Neither do I believe that acetate of lead, in any sized doses, could act quicker or in a more efficacious manner through the "sympathetic nervous system," or as an "emetic," than the "instantaneous" reflex action excited by pressure,* friction and cold, causing the uterus to contract and the bleeding to cease.

Invaluable as ergot is, as a remedial agent, it is often injudiciously used, both in aiding child-birth and in the hæmorrhage which succeeds it. In mild cases of hæmorrhage it may be sufficient to arrest the flooding, but from the fact that it may be from ten minutes to an hour after its administration before its specific effect is apparent, it cannot be relied upon in severe cases to arrest the bleeding; yet its value is not lessened as its use *may secure permanent contraction of the uterus*, and render patients safe from renewed attacks.

We often hear physicians expressing disappointment in the use of ergot, "that it is uncertain," that "patients sometimes flow just as much," etc., etc., this uncertainty will in many cases admit of explanation, and can also in many cases be remedied. Whether

* Preventing hæmorrhage by grasping the uterus through the abdominal walls is, without doubt, in part mechanical.

ergot is given to facilitate child-birth, or for the purpose of preventing or arresting post partum hæmorrhage, in no class of patients are its desired effects more apparent and satisfactory than in women of "full plethoric habits, where the hearts are in strong action and all the vessels are gorged with blood." On the other hand distrust of its virtues and disappointment in its effects are frequent when administered to women who are weak, delicate and lax-fibred, with pale countenances, feeble pulses, spare limbs, and with weak and slow labor pains. Why is it that in one instance we see such decidedly good effects from the ergot, while in the other we observe no beneficial effects, or else those of a detrimental character? The reasons are obvious. The well known depressing influence and power of lowering the circulation, which ergot possesses, renders it peculiarly applicable, and presents no hindrance to its specific effect of securing permanent contraction of the uterus in hæmorrhage occurring among the first mentioned class of patients. But the propriety of giving ergot in cases of hemorrhage occurring among the second class is extremely doubtful, the weakened or exhausted condition of the nervous system, and enfeebled circulation, so often the producing cause of uterine hæmorrhage are increased and aggravated by its administration. In such cases the hope of stimulating the exhausted uterus to contraction is vain, as each dose tends to debilitate it still more, but if given, a full dose of opium or some one of its preparations should be given with it, as opium thus acts as both a corrugant and adjuvant. Still a better way is, to wait until the nervous energy is restored by opium before the ergot is administered.

In the treatment of post partum hæmorrhage of the last mentioned character, we possess no remedy of greater value than opium. Opium as both a stimulant and sedative, is in the physician's hands a remedy potent for evil or good, and whether given alone or as an adjuvant, should be understandingly administered without assuming that its operation must be the same, when the uterus has lost all power to contract, as when it has contracted spontaneously.

Paradoxical as it may seem, opium can cause the uterus to contract in one form of hæmorrhage, while in other cases it may cause it to relax, for its influence is manifestly different when nervous irri-

tability is almost exhausted, than when it is excited to the highest degree. In the language of Prof. Murphy, "If nervous irritability be not impaired, or if it be increased a small dose of opium would stimulate—a larger one would exhibit its sedative effects; but if on the contrary that irritability is destroyed and the uterus atonic, the same large dose would only act as a stimulant. Nor will the sedative property of the medicine be observed until the nervous energy is restored. In the use of opium, therefore, strict attention should be paid to the degree of hæmorrhage and the effect upon uterine contractability. When the loss of blood is slight, or at least not sufficient to impair the tone of the uterus, a large dose would be dangerous lest it might act as a sedative, overcome the influence of the nerves and cause the uterus to relax. When the loss is great and followed by exhaustion of the uterus, then the very same quantity of the medicine will produce an opposite effect—it will act as a stimulant and cause contraction of the uterus."

The satisfactory experience I have had in the sub-dermal use of morphiæ in the treatment of various diseases, especially where a speedy effect is desired, is so great that I have no hesitancy in recommending its use by means of the hypodermic syringe in the class of hæmorrhages alluded to, where opium is particularly indicated, as patients are then more certain to experience its influence and in a much shorter space of time than when given by the stomach. I trust the day is not far distant when our list of remedies to be thus given will be much enlarged, among which the active principle of ergot would be a great desideratum. Of the prophylactic treatment of post partum hæmorrhage much might be properly added, which I shall of necessity pass by.

In taking leave of Dr. Irwin's paper, I will simply add that it is my belief, that success in the treatment of uterine hæmorrhage can neither be secured or expected by following rules or administering remedies the same in each case, but with correct knowledge of the palpable truths of physiology, pathology and therapeutics.

Dr. Felix Robertson, the first white male child born in Nashville, Tenn., died in that city in June last, aged 84 years.

ART. III—*Abstract of Proceedings of the Buffalo Medical Association.*

TUESDAY EVENING, Dec. 5th, 1865.

Society met at the usual hour, Dr. Wm. Gould, Vice President, in the chair. Present, Drs. White, Gay, Gould, Samo, Whitney, Greene, Little, Smith, Brown, Rochester and Johnson.

DR. WHITE wished to call the attention of the Association to a case in regard to which an article was published two years since. It will be remembered that a young female, a patient of Dr. Potter, a respectable practitioner of Wyoming county, was, after a protracted labor, delivered with instruments, and that her delivery was followed by severe inflammation of all the pelvic visera, resulting in partial adhesion of the vaginal walls, and complete obliteration of the cavity of the neck of the uterus. It will also be recollected that I then stated that about a year subsequent to her delivery she came to me for treatment, at which time she was nineteen years of age, her general health good, had menstrual molimen and intense pain without any flow.

Recto-vaginal examination showed the uterus in situ, and not above the normal size. On dividing and breaking down the adhesions of the vagina, and dilating it so as to examine the uterus, it was found impossible to discover any entrance to that organ. The neck of the uterus was found to be completely occluded. In the presence of Professors Moore and Eastman, Dr. Coventry and others, a sharp-pointed bistory was carried in the direction of the neck and body of the uterus about an inch and a half without finding any cavity. Sponge tents of increasing size were introduced from time to time. After sufficient dilatation the incision was carried rather more than half an inch farther toward the fundus. Sponge tents were again introduced from time to time for several months, when a galvanic pessary was substituted for the tents and worn for several months. During all this period the patient had severe periodical pains as in dysmonorrhœa, but without menstrual flow. Her general health continued good. At length on one of these occasions a sanguinolent discharge made its appearance. After which pregnancy ensued, and at full term she was delivered of a fine healthy boy, a photograph of which the happy father presented to me soon after.

It will be remembered by the members of the Association that I

have frequently called their attention to the use of the galvanic pessary as a means of stimulus to the uterus. I do not pretend to give the rationale of this case, but the facts are undisputable and full of interest.

Dr. White also related the case of a lady residing in Holland, Erie county, who was brought to him by Dr. Cheesman for diagnosis and treatment. She had consulted several physicians, most of whom had differed in their diagnosis. On examination with a sound Dr. W. found a large post uterine tumor. In order to fully satisfy himself of its character he passed a Simpson's exploring trochar via the vagina into the tumor. A few drops of pus flowed out. There was little or no hemorrhage. The patient was immediately seized with pain in the abdomen, looked pale, seemed collapsed. These symptoms of shock were soon followed by marked symptoms of peritonitis. Directed that the patient be kept quiet, and that she have whisky and morphia. Sent for Drs. Rochester and Eastman, with whom he saw the patient an hour later, when she was very feeble, almost pulseless, and death seemed near at hand. On recto-vaginal examination the tumor was found to have completely disappeared. She remained in a critical condition for several days, when she began to improve, and finally entirely recovered her health. What became of the contents of the tumor? They did not pass away by the rectum or the vagina. My belief is that the superior wall of the tumor was very thin and easily ruptured, and that by the introduction of the trochar the superior portion of the tumor *was* ruptured and its contents emptied into the peritoneal cavity, and in due time absorbed. The stimulus and anodynes were continued as long as they seemed indicated, and the patient's recovery was in my belief due to the judicious use of these agents. Dr. W. regards the case an interesting one because of its relation to the question of effusion of pus into the peritoneal cavity and subsequent recovery.

Dr. Gould would inquire of Dr. White how long he thought it advisable for a patient to wear a pessary, and said that he had removed them after they had been carried a year, by direction of some other practitioner.

Dr. White replied that he was not in favor of pessaries. Had no rule as to time. Would use them but a short time without

removal. He had not long since removed one that had been introduced by another practitioner, and worn two years, and caused ulceration through the walls of the vagina and rectum.

Dr. Gould reported the case of a female to whom he was called and found all the signs of pregnancy, and thought her labor would come on within a few days. Ten days after called and found the patient quite well, and that the enlargement had entirely passed away.

Dr. Gay mentioned a case of intra-uterine tumor in which three weeks after its removal a tumor was found on the inside of the thigh. On post-mortem examination found that a large amount of pus had passed from the peritoneal cavity down beneath the facia lata to the middle of the thigh and formed the tumor.

Dr. Gould related the case of a woman who, in December, three days after confinement, was taken with chills, tumors soon made their appearance, were opened and succeeded by others until the following May when she recovered.

Report on prevailing diseases being in order, diphtheria, influenza, typhoid and intermittent fevers and diarrhœa were reported as prevailing.

Miscellaneous business being in order the Association unanimously voted that a proper card be placed over the door of these rooms.

The Secretary read a communication from Dr. Joseph A. Peters, tendering his resignation as Secretary of the Association.

On motion of Dr. Rochester the resignation of Dr. Peters was accepted.

The Secretary stated that Dr. Peters had forwarded to him his account with the Association and wished the proper action to be taken in regard to it.

Dr. Rochester moved that it be referred to the auditing committee, to be reported upon at the next regular meeting. Carried. Adjourned.

Thos. M. Johnson, Sec'y.

Dr. Mott's Will.—The entire value of the estate of Dr. Valentine Mott is stated to be about $400,000. His anatomical museum goes by his will to the New York Medical College.

ART. IV.—*Clinical Remarks upon Surgical Cases in the Buffalo General Hospital—Excision of two-thirds of the Humerus in a Child two and a half years of age—Varicose Veins and Ulcers—Lumbar Abscess.* By J. F. MINER, M. D.

GENTLEMEN—I desire in the first place to show the results of an operation which you have previously witnessed:

PATRICK K—— is the man from whose shoulder we removed the head of the humerus about six weeks since; he has come up from his home desirous of showing what the operation has done for him. As you will recollect, he had suffered for two years from pain in the joint and discharge in such degree as to induce a condition of great debility, giving him the appearance of a patient in the last stage of some fatal malady. Since the operation he has suffered nothing of his former pain, the suppuration soon ceased, and the wound healed entirely. His appetite and strength have returned, and his friends can scarcely believe he is the same man. The removal, then, of the carious head of the humerus is shown, in this instance at least, to have been a very judicious and well-advised procedure; by it our patient has been immediately restored to comparative soundness. You may observe by the way he moves his arm that most of the functions are retained; he can use it perfectly in some respects, while in others he cannot; cannot raise it with much force at right angles with the body, but it is quite strong in all other directions. There is a new connection made with the glenoid cavity, ligamentous in character, which answers to fix in some degree the upper end of the humerus, but of course it is loosely fixed and consequently not a mechanical improvement upon the original plan of making this joint, but it must be acknowledged a very good imitation, and worth vastly more than could have been expected.

Excision of the Humerus.—The little child which we now bring before you, fully under the influence of sulphuric ether, is about to undergo the same or a similar operation as that made upon the man who is so proud of his restored arm. The little child when very young—six or eight months of age—commenced to suffer from redness, tumefaction, and very great pain on motion of the arm. Abscesses formed and were opened, and very soon it was evident that somewhere the bones constituting the shoulder-joint were diseased. The little child fell under my observation through

the kindness of my friend Dr. Nichell, the nature of the difficulty being at the time perfectly obvious. It was very feeble during that season, looking as if it would receive but few attentions more in this life. While the child was under the care of Dr. Nichell we promised the mother that when it had gained flesh and strength and the warm season had passed, we would make operation for removal of dead bone. It appears remarkable that the child should have recovered from the condition of debility, but so it is, and now is apparently well nourished; the local disease however is the same, or certainly, no better. The discharge of pus from the various openings around the joint and over the body of the bone, is as profuse as possible, while a probe passes down in many places upon dead bone. Dr. Otto Berger, who has recently had charge of the patient, has accepted the offer made the mother so long since, and kindly presented his patient before you for the removal of whatever of dead bone may be found. In the usual way we have opened by a single straight incision down upon the head of the humerus, which is found completely carious; caries in bone, answering as you will recollect to ulceration in the soft parts. This condition of disease extends down the body of the bone, and the periostium is very easily separated from its attachment. The bone is divided carefully and smoothly with the saw, and two-thirds of the whole bone removed.

This looks like a severe operation for our little patient, but it would be difficult to conceive how removal of such a diseased structure could be worse than letting it alone. If we are successful in our operation and correct in our expectations we shall achieve a real success, the little child will recover and be freed from this terrible drain upon the constitution and life. The arm will not be useful and strong like the other, but as you have just seen, nature is competent to provide a new attachment of the bone—a ligamatous extension will grow from the divided bone, and remaining periosteum, and the little child will have a useful hand, worth a thousand times more than an artificial one; but of course the operation is not unattended by danger, and our little patient may disappoint us altogether. Such an operation now takes the place of what would formerly have been amputation at the shoulder joint. Its advantages arise from two facts; it is less dangerous to

the life of the patient, and if successful the arm looks better and is much more useful than any artificial one, even though we have been obliged to remove so much of the bone. This is conservative surgery; avoiding mutilation and still removing the disease; it is a case eminently illustrative of true conservatism. You have heard of conservative surgery, a term used by many to apologize for the most stupid and unjustifiable inactivity, but it should be used in a widely different sense. Conservative surgery means active, earnest, well-advised, operative interference in all cases where positive benefits may be gained—where organs and functions may be preserved or restored. Of our success in this case of conservatism we will inform you when results are determined.

Varicose Veins.—We have another case similar to the one I described to you and operated upon a few days since. The results in the other case were satisfactory, and it has not fallen to me to know of a single case which was treated skillfully by this method of injecting solution of persulphate of iron, but has proved satisfactory; and I have tested it by numerous trials. We then repeat the same operation--inject three drops of the solution diluted with thirty of water into the dilated vein; this is done in two or three places where the vessel is large or has enlarged branches. The ulcers will disappear after the veins are obliterated by a process I have before explained.

Lumbar Abscess.—Mr. C——, aged 48, of rather delicate appearance, has been this morning admitted from the medical to the surgical ward, and presents for treatment a tumefaction in the lumbar region of not more than four or five weeks' standing. It is tender upon pressure of the spinal bones just above the swelling; he walks in a stooping and very careful manner, and complains of great pain in the back. Upon examination there is evident fluctuation, and from the history, appearance and symptoms there is no doubt our patient is suffering from what is called lumbar abscess. In consequence of disease of the vertibræ pus often forms at the lateral aspect of the spine, and when thus appearing it has been called lumbar abscess. If it follows the proas muscle and appears in front it has been called proas abscess, but wherever it may appear it is disease of the vertabræ, and should be so regarded and treated. This form of disease has also been regarded as a strumous disease and liable only to arise in persons of a strumous

constitution. More recently other opinions have been urged, and the view entertained that injuries may cause it even in healthy constitutions—that it more generally arises from traumatic causes. This patient is brought before you early in the disease which is quite remarkable, most cases not coming under the observation of the surgeon, until much farther advanced. The fluctuation is not very distinct, and the pus is as yet deep beneath the muscles of the lumbar region. The pain is severe, relish for food gone, sleep is disturbed, chills followed by perspiration are frequently repeated, the system generally is disturbed and the patient has a worn, anxious expression, and is impatient of relief from pain.

Clinical experience has led to some differences of opinion as to the proper management of such abscess. Some surgeons advising that it be left unopened, and others claiming that to allow the escape of the pus is necessary for the relief of pain and is unproductive of injury. In the very early stage in which we find this disease in this instance, it is believed that evacuation of the pus may relieve pain and possibly be of service in other respects. I have determined in this case to puncture and verify my diagnosis, and if possible relieve the constant and depressing pain our patient suffers, believing that pus as an almost universal rule, may better be allowed an escape than to be retained, and hoping that in this early stage of the disease some permanent improvement may be gained. Differences of opinion even in this case are entertained, and I have been advised by distinguished practitioners in this department not to interfere, but allow nature to pursue its own course. I had promised my patient relief by evacuation, and had made up my mind to that course. I am hardly now in condition to change without some new light or new fact, and prefer to try the plan I had proposed. Later in the disease it is not to be doubted, that whatever course may be adopted the result is about the same, sooner or later the malady is fatal. The proposition to evacuate sub-cutaneously, by valvular incision, or with exhausting syringe, to avoid admission of air, is probably, not of the slightest importance. The operation in advanced disease, in whatever way performed, is often followed by hectic fever, rapid failure of the health and strength and early fatal termination, and there is reason for the belief that in such cases life is longer continued without surgical interference.

Miscellaneous.

Vaccine Matter from the Cow.

It will be recollected that at the Medical Congress at Lyons last year, Professor Palasciano, of Naples, gave an interesting account of the practice of vaccinating from the cow followed at Naples for the last sixty years. At that time a kind of panic prevailed in France respecting transmission of syphilis through the medium of vaccine lymph, and the Neapolitan plan was warmly welcomed as offering an effectual preventive to such a diaster. Cows were accordingly vaccinated in Lyon and Paris; but as we have heard nothing whatever of late of the plan being pursued, we suppose that either practical difficulties or a suspicion that great exaggeration had prevailed concerning the evils attendant upon the ordinary mode of vaccination have prevented its being continued.—However this may be, the Prussian Government, having had its attention drawn to the matter, has caused a report to be prepared, of which Dr. Müller gives an account in a recent number of the *Berlin Medical Wochenschrift*. It seems that a Dr. Galbiati commenced the practice of vaccinating directly from the cow at Naples sixty years ago, and that it has been regularly continued from that time by Signors 'Feola and Negri. From the years 1849 to 1859, the cows employed were the property of the King, who had his own family vaccinated in this manner; but since then Negri has conducted the vaccinations as a private speculation, charging five francs for bringing the cow and vaccinating the child at its parents' residence. The generation of the vaccine pustules does not seem to injure the cow, but the udders, upon which are often from 80 to 100 pustules, are so much damaged that the animal is usually slaughtered, the price obtained for it going towards covering the expenses. It is remarkable, however, that this mode of vaccination does not seem to have become, even after so long a period, very popular in Naples, although warmly supported by influential persons, the ordinary vaccinations being performed just as in other countries, the employment of Negi's cows being confined to the richer persons and the re-vaccination of a portion of the army.

Some of the Neapolitan lymph having been forwarded to Berlin,

Dr. Müller made some comparative experiments with it and with lymph derived from other sources, and found the results identical. He also vaccinated some cows and calves with the lymph, generally producing true vaccine pustules, which attained their full development by the sixth or seventh day. They were, however, far from containing the quantity of lymph stated by Negri to be produced, this not running out after the separation of the scab, as is usually the case in the human pustule, so that the glass tubes were filled only with difficulty. This lymph produced true pustules in some children, while in others it did not succeed. The milk of the cows submitted to the process diminished in quantity, and the animals became emaciated. Alarmed also, they offered much resistance to both the inoculation and abstraction of the lymph; so that it is evident that Negri's cows must furnish a larger supply of lymph, and belong to a quieter race, or he must be much more expert in their management to enable him to take them to the patients' houses for the small sum of five francs. However, the trials made establish the possibility of vaccinating direct from the cow in all cases, but they also show that it is neither as easy or cheap process. After all, is there any great advantage in substituting this mode of proceeding for that from arm-to-arm vaccination? and is there not at least as much danger of transplanting diseases of the cow as of conveying syphilitic poison, especially as the best and most robust cows would naturally not be those employed for this purpose?—*Med. Times and Gaz.* Oct. 28, 1865. *Medical News.*

Ventilation of Hospitals.

Dr. Gallard of La Pitié, who has lately paid much attention to the ventilation of hospitals, has arrived at the conclusion that *natural* is far superior to *artificial* ventilation. At Hospital Beaujon, he says, has been in operation since 1856 Van Hecke's system of ventilation in the female surgical pavilion of that hospital; and yet statistics show that the mortality has, if anything, increased. In 1851, there was one death to 17.16 patients treated; in 1852, one to 16.26; in 1853, one to 14.48; in 1854, one to 13.81; in 1855, one to 16.23; in 1856, one to 14.25; in 1857, one to 14.93; in 1858,

one to 12.85; in 1859, one to 17.14; in 1860, one to 12; in 1861, one to 11.60; in 1862, one to 12.30. At Hospital Necker, where the same apparatus is is operation, the mortality has remained precisely as it previously was, viz: one in eight or nine patients. Then, again, we find still more striking results if we compare the mortality of La Pitié, where there is no artificial ventilation, with that of Lariboisière, where the most expensive system prevails. Lariboisière nominally contains 606 beds, but its average number is 634. La Pitié contains 620. Lariboisière is placed on a height, and stands in an open space. La Pitié is placed low; has muddy waters, tanneries, etc., around it; its superficial area is 21.7 *metres.* Lariboisière has 51.8 *metres;* its beds have each 52 to 53 cubic *metres,* whilst those of La Pitié have from 25 to 49 only. These and other circumstances place La Pitié in a hygienic position greatly inferior to that of Lariboisière. And we should naturally be led to conclude that the mortality of La Pitié was greatest; but such was not the case. We find from statistical comparison of the mortality at the two hospitals since 1858, when Lariboisière was opened, that the mortality in both was much the same. During eleven years, Lariboisière has received 100,718 patients, of whom 12,616, or one in 7.9 died; whilst La Pitié received 103,707, of whom 13,189, or one in 7.8 died. Facts like these, M. Gallard contends, show that artificial systems of ventilation of hospitals are, to say the least of them, useless. Then, again, it appears that during these years, in which statistics were taken, the average duration of diseases in Lariboisière is about two days longer than in La Pitié. It is needless to add, that the expense attending artificial ventilation is great. M. Gallard has often noticed an inconveniently high temperature in wards artificially ventilated. In Lariboisière, where the ventilator of Farcot is employed, the temperature is generally about 17° to 18° cent., and sometimes even above 20°, when 15° or 16° should have been the maximum. The original expenditure on the ventilating apparatus at Lariboisière was upwards of £16,000; and every year the expense of heating the hospital is more than £3,000, whilst that of La Pitié costs only £1,000.—*Brit. Med. Journ.*, Sept. 23, 1865.—*Med. News.*

Mortality of the Child-bed as affected by the Number of the Labor.

The *Edinburgh Medical Journal* for September last contains an interesting paper on this subject by Dr. J. Matthews Duncan. The author, after presenting the statistics he has collected, remarks, "It must be noted that I have, hitherto, at least, said nothing regarding the nature of the relation between the number of the delivery and the mortality attending it. It is true the data recorded demonstrate more or less completely certain coincidences, which may be called laws. But they establish nothing further. These laws are as follows:

"1. The mortality of first labors is about twice the mortality of all subsequent labors taken together.

"2. The mortality from puerperal fever following first labors is about twice the mortality from puerperal fever following all subsequent labors taken together.

"3. As the number of a woman's labor increases above nine the risk of death following labor increases with the number.

"4. As the number of a woman's labor increases above nine, the risk of death from puerperal fever following labor increases with the number.

"5. If a woman has a large family, she escapes extraordinary risk in surviving her first labor, to come again into extraordinary risk as she bears her ninth and subsequent children.

"These laws, although they merely state coincidences, have very important practical bearings, which are too self-evident to require description. They have also important philosophical bearings, which were alluded to in the commencement of this article. The most important, perhaps, of these relate to puerperal fever. These also I shall not enter upon farther than to say, that the attendance of puerperal fever specially on primiparæ, and women who have born large families—its pretty close correspondence in relative amount to the general mortality of parturition after different pregnancies—its subjection also to the law of the duration of labor—do not appear to me to lend support to the views hitherto generally entertained regarding it, and expressed in the words accidental fever, contagious, epidemic. Another point under this head I shall merely mention. Authors, comparing the mortalities of

lying-in institutions, whether from puerperal fever or from other causes, are frequently found neglecting to begin by ascertaining whether or not they are fit objects of comparison, and under this head, *inter alia*, neglecting to ascertain the comparative amount of primiparity in each institution. It is plain that, unless there be nearly the same comparative amount of primiparity in the institutions, their respective gross mortalities cannot be justly compared with one another."—*Am. Jour. Med. Sciences.*

Internal use of Chloroform in Convulsions.

The *American Medical Journal* for October contains an interesting paper by Dr. A. P. Merrill of New York, on the internal use of chloroform, in convulsions dependent on cerebral congestion. He gives it in large doses, often one and even two drachms at a dose. When thus administered he ascribes to it a decided power over every kind of convulsive moment, and certain relief to every form of congestion. It is much less irritating to the mucous lining of the mouth and throat than to the skin. "Sometimes a single drop falling into the folds of the neck will cause vesication, while a fluid drachm passing into the stomach gives only a slight inconvenience by its stimulation of the mouth and throat." In a case of convulsion occurring in a little girl, and which had continued two hours, the child being pulseless and apparently at the point of death, he "poured full half a drachm within her lips, which were elevated to receive it. It found its way slowly through the teeth, and was, with a convulsive effort, swallowed without any loss. In one minute all the convulsive movements were lessened, as remarked by the attendants. Still, there remained considerable spasmodic action, and the eyes were unaffected, being wide open, with dilated pupils. The dose of chloroform was repeated in a few minutes, and almost instantly her eyes were closed and no spasm remained." Other cases are reported of like character. The remedy was equally efficacious in congestive chill, and it was used with success in two cases of poisoning by strichnia. We confess to some degree of surprise at this heroic mode of administering chloroform. We have always been cautious to dilute it liberally with mucilage. But the statements of Dr. Merrill certainly

entitle his method to a full trial at the hands of others. Though the convulsions of children are rarely fatal, yet we do occasionally meet with an attack which resists all treatment and holds on tenaciously till death. If the large doses of chloroform can be applied in such cases with the declared results, we shall rejoice to have in our possession the means of achieving such a triumph.—*Pacific Medical Journal.*

Experimental Investigations into the Action of the Bromide of Potassium.

This is the title of a very interesting paper by Dr. Roberts Bartholow, in the November number of the *Cincinnati Lancet and Observer.* The author's investigations were conducted in three directions: 1st, the chemical properties; 2d, the physiological effects; and 3d, the therapeutical uses of the salt.

The physiological effects of the article when taken into the stomach, Dr. B. sums up as follows:

"1. It proves irritant in large doses to the mucous membrane of the stomach.

"2. It is rapidly absorbed into the blood, and may be detected soon after in the urine.

"3. It acts upon the nervous centers, producing sedation, sleep, reduces the action of the heart and arteries, lowers the temperature, and diminishes the retrograde metamorphosis of tissue."

The prolonged administration of the bromide of potassium produces according to Dr. B. the following effects:

"1st. It diminishes and ultimately entirely neutralizes the sexual appetite.

"2d. It produces weakness of the muscular system.

"3d. It is irritant to the stomach if given in considerable doses, and

"4th. It interferes with the secondary assimilation, lessening the retrograde metamorphosis of tissue."

In regard to its therapeutical uses Dr. B. extols it as a *disinfectant* and *deodorizer*, as an *escharotic* in sloughing and gangrenous ulcer, phagedenic chancres, hospital gangrene, epithelioma, etc.

"The actions of the bromide of potassium physiologically considered," Dr. B. states, "consist in a sedative or contra-stimulant

effect upon the nervous centers, producing as secondary phenomena, sedation of the heart, anæmia of the brain, anaphrodisiac effects and diminution of the retrograde metamorphosis of tissue. It has come into use in various functional and organic nervous disorders, and in certain sexual diseases, where a calmative and sedative influence is desired."

This article Dr. B. considers to be indicated as a hypnotic in states of nervous excitement without congestion of the nervous centers; in hysterical insomnia; in delirium tremens; in the insomnia of excitable business men, or, in general terms, in those forms of insomnia dependent upon excitation without increased blood supply. Dr. B. has found it especially useful in irritable bladder, and the chordee of gleet. We have several times prescribed, ourselves, with benefit in these conditions.

For a careful survey of all the facts Dr. B. gives the following as the *methodus medendi* of the salt in question:

"1st. The bromide of potassium acts by absorption into the blood.

"2d. Its effects are expended upon the nervous centers, or the cerebro-spinal axis.

"3d. Sedation of the heart and circulation, and the various local sedative effects are secondary results of the impression made upon the nervous centers.

"4th. Its physiological effects are not very decided, and are easily modified by any local disturbance.

"5th. Its therapeutical action is still more decidedly influenced by local morbid processes.

"6th. It is indicated where a sedative to the nervous system is required—in insomnia; too great reflex excitability; nervous and spasmodic affections of the larynx and bronchi-sexual excitement, and in an irritable state of the sexual organs.

"7th. It will be effectual in the foregoing conditions, in proportion to the degree in which structural lesions are absent, or in other words, in proportion to the degree in which these morbid states are functional rather than organic."

The bromide, Dr. B. asserts, possesses none of the peculiar alterant property of the iodide. Whilst this fact is true, it is undoubtedly the case that the bromide relieves congestion of certan

organs, diminishes their bulk, or, as it may be styled, produces resolutions of an engorgement. Such action, apparently alterative or resolvent, is not really so. It has been exhibited mainly in certain states of the uterus and ovaries—states of hyperæmia dependent upon sexual excitement, or upon the monthly nisus. The apparent resolvent power is, in this case, due to the sedative impression of the remedy upon the sexual organs and upon the vaso-motor nerves.—*Am. Jour. of Medical Sciences.*

Editorial Department.

Books Received.

chapters devoted to the twenty-two groups of diseases, by one on the Anatomy and Physiology of the Skin; and we have followed the chapter on Anatomy and Physiology, by one on the Pathology of the Skin, and the classification of its diseases. Our aim has been to simplify, to endeavor to restore to general medicine a department of much interest and importance, and, by furnishing the student with a clear view of the diseases, to remove them from the narrow sphere of specialism to the wider and nobler field of Catholic medicine."

The author has accomplished what he proposed, and consequently this book, which is comprised in near 500 pages, and elegantly published, will constitute the favorite standard not only of medical students, but of the general practitioner.

Death of Dr. Thomas W. Blatchford, of Troy, N. Y.

We copy the following mention of the life and character of Dr. Blatchford from a Troy paper, as we have no other data upon which to rely, though we have long known Dr. Blatchford as one of the ablest and best physicians:

"We are called upon to announce the death of one of our oldest and most respectable citizens—one of our purest and best men—and one widely known and esteemed, not only in this community, but throughout the State, and even known in the ranks of his profession in Europe as well as in America. Thomas W. Blatchford, M. D., died at his residence in this city at twenty minutes to one o'clock yesterday, (7th inst.) Although in failing health for [illegible] that [illegible]

in the following manner:

The lids being closed, the orbit is to be packed, as it were, by means of charpie, or picked lint, (scraped lint or cotton wool is not so serviceable,) in such a manner that all parts about the eye, within the orbit, the anterior hemisphere of the globe, and especially the conjunctiva, shall be acted on.

Care must be taken to fill the grand angle, and to have the charpie evenly and regularly disposed *about* as well as over the globe.

Quite a large bunch should be used for each eye, not only to ensure evenness of pressure, but to absorb the purulent discharge. This being done, compression is made by means of a bandage, or better, a firm elastic band of rubber braid, not less than two inches in width, passing around the head. It should be slowly and regularly increased until the pain, if any there be, in the parts affected, is greatly diminished or controlled, if practicable.

In other words, pressure is to be applied to the eye and surrounding parts within the margin of the orbit to a degree sufficient to so control the circulation as to prevent the destructive tendency of the disease, but not to interfere with proper nutrition. This must, of course, vary with the peculiarities of each case.

But the principle of employing, as constantly as possible, firm, hard, even and continued pressure from the *earliest moment practicable* until the *close of all acute symptoms*, is not to be lost sight of for a moment The anatomy of the orbit, the mechanism of the lids, and the cushion of adipose tissue posterior to the globe, render this not only possible, but easy.

I have in no instance resorted to it in purulent or gonorrhœal affections of the eye during the acute stages, even after the organ has been irretrievably lost, without greatly diminishing the discharge in a short time, and very materially adding to the patient's comfort in reducing the pain, and modifying subsequent and present staphyloma."

Board, and we believe held that office at the time of his resignation. The Blatchford school in the fourth ward, bears his name as a tribute to his noble exertions in the cause of education. He manifested great interest at all times in the religious and moral questions of the day—was an earnest advocate of temperance—and for a number of years an elder in Dr. Kennedy's church, at which he was a regular attendant. He was a brother of Hon. Richard M. Blatchford, ex-Minister to Rome, and a well-known citizen of New York. He leaves a wife, two sons and a daughter, besides numerous relatives and a large circle of friends and acquaintances to mourn his loss. He had a wide range of practice, and numerous families who were wont to call in his services in the hour of sickness and affliction will greatly miss his consoling and healing visits. Possessed of the noblest qualities, of head and heart, with talents of the highest order, a mind inspired by the noblest impulses, his death will be mourned as a public loss, no less than an irreparable private grief to the immediate circle of relatives and friends who best knew his manly and noble characteristics."

New Journals.

We have the following announcement of a medical journal to be published in New York, and desire to give the publishers the the opportunity of speaking for themselves, and so copy their propositions for the benefit of our readers:

"The undersigned take pleasure in announcing to the medical profession that they will begin on March 1st, 1866, the publication of a first-class medical journal, entitled THE MEDICAL RECORD, to be issued on the 1st and 15th of each month, and consisting of twenty-four double-column, super-royal octavo pages, printed on fine paper, with neat, clear type, forming a large handsome volume of about 600 pages at the end of each year. It will contain original articles from the first men of the country in their respective departments, reports of lectures, societies, and hospitals, an account of the progress of medical sciences throughout the world, medical news, notices of books and new instruments, editorial articles, etc., etc. It is proposed, whenever the articles require, to have them illustrated with finely engraved wood-cuts. The editorial management has been confided to Dr. George F. Shrady, of this city, whose experience in medical journalism is a guarantee that the paper will be conducted in such a manner as to receive the confidence and respect as well as meet the wants of the profession throughout every section of the country. He will be assisted by associate editors in several of the larger cities of America, e c., etc., with some of whom our arrangements are already perfected, and so soon as we can complete the list we shall publish their

names. The services of able short-hand reporters have been secured for the lecture department. In a word, both editor and publisher will exert themselves to the utmost to make THE MEDICAL RECORD thoroughly worthy the countenance and patronage of the profession, useful in their practice, and interesting in their leisure moments. The specimen number, which will be the first of the volume, will be published on or about February 1st. The names of some of the leading contributors to the first volume will be announced in the first number. Terms of subscription, $4 per annum, payable in advance.

"WM. WOOD & Co., Publishers,
"61 Walker street, New York."

We have also received the following Prospectus of the ATLANTA MEDICAL AND SURGICAL JOURNAL (new series):

"After an absence of four years, the ATLANTA MEDICAL AND SURGICAL JOURNAL will make its appearance again on the first day of January, 1866. It is desirable to issue the first number at the opening of the Atlanta Medical College, on the first of November next, but the destroying hand of war has made it impracticable to attempt its publication before the middle of the session. We hope our old patrons will not only send on their names and subscription fee, but make our journal the medium of communicating such views as may be of interest to the profession. At no period since our connection with journalism has a medical periodical been so necessary as at the present time. The four years of active duty, to a large extent in military practice, without any communication with each other through the press, afford physicians rich stores of valuable information for the profession generally, Our object, in the conduct of the Journal will be mainly to promote advancement in the medical sciences, but we will fearlessly, honorably and independently advocate such principles in ethics and other subjects connected with the body medical as will be most conducive to the harmony of the profession, and the cause of humanity. The Journal, containing sixty-four octavo pages of reading matter, on fine paper, will be published monthly, at five dollars a year, in advance. Address J. G. & W. E. WESTMORELAND,
Editors, Atlanta, Georgia.

PERSONAL.—Dr. and Mrs. James P. White, of this city, sailed from New York on Friday, January 5th, in the steamer "Europa" for Brest. Dr. White expects to spend at least eighteen months in Europe, and our readers have the promise of communications upon matters of medical interest observed during his journey in foreign countries. He goes out with the best wishes of his medical friends for a pleasant journey and a safe return.

Buffalo City Dispensary.

Officers for ensuing year—President, Jason Sexton; Vice President, F. P. Wood; Treasurer, S. N. Callender; Secretary, Isaac D. White.

Board of Managers—Samuel N. Callender, Charles H. Coleman, C. W. Harvey, William Tweedy, George A. Moore, Isaac D. White, Jason Sexton, Jacob H. Koons, George Howard, George Jones, Samuel Cary, M. D., Francis P. Wood, James Brailey.

Physicians—2d ward, Dr. P. H. Strong; 3d ward, Dr. J. Boardman; 4th ward, Dr. J. Hauenstein; 6th ward, Dr. J. B. Samo; 7th ward, Dr. J. N. Brown; 8th ward, Dr. Sandford Eastman; 9th ward, Dr. C. C. Wyckoff; 10th ward, Dr. Thomas Lothrop; 11th ward, Dr. L. P. Dayton; 12th ward, Dr. Henry Nichell.

Consulting Physicians—Drs. Thomas F. Rochester and George N. Burwell.

Consulting Surgeons—Drs. Julius F. Miner and J. R. Lothrop.

Apothecary—Wm. H. Peabody, Clarendon Hotel block, corner Main and South Division streets.

Erie County Medical Society.—The regular Annual Meeting of the Erie County Medical Society was held in this city Tuesday, 9th inst., when the following officers were elected for the ensuing year:

President, George Abbott, M. D.; Vice President, J. R. Lothrop, M. D.; Secretary, Thomas M. Johnson, M. D.; Treasurer, Wm. Ring, M. D.; Librarian, J. B. Samo, M. D.; Primary Board—L. P. Dayton, M. D., E. B. Tifft, M. D., H. Vanguisling, M. D.; Censors—S. W. Wetmore, M. D., S. F. Mixer, M. D., J. R. Lothrop, M. D., P. H. Strong, M. D., J. Hauenstein, M. D.; Delegates to the State Medical Society—J. F. Miner, M. D., J. R. Lothrop, M. D., C. C. Wyckoff, M. D., Thos. F. Rochester, M. D.

Successful Removal of Uterus and both Ovaries by Abdominal Section.—Dr. Horatio R. Storer of Boston, sends us a pamphlet containing a detailed account of the operation for removal of the uterus and ovaries, which he made successfully upon an unmarried lady, aged 47, in September last. The pamphlet also contains a very complete account of the literature of this operation, which must prove very interesting to all those who propose repeating it. We most heartily congratulate Dr. Storer upon his success, for perhaps no operation in surgery would require more moral courage to perform, than this, since no one has been more uniformly attended by fatal results. The paper is also published in *American Journal of Medical Sciences* for January, 1866. Thus many of our readers will see the paper entire. The author seems sanguine of success in such operations, and gives reasons for his conclusions which appear quite satisfactory.

BUFFALO

Medical and Surgical Journal.

VOL. V. FEBRUARY, 1866. No. 7.

Art. 1.—AN INTRODUCTION TO THE STUDY OF THE OPTICAL DEFECTS OF THE EYE AND THEIR TREATMENT BY THE SCIENTIFIC USE OF SPECTACLES.

BY A. M. ROSEBRUGH, M.D., TORONTO.

(The following pages were written as an introduction to a course of lectures on the diseases of the eye.)

In their preparation, I must here acknowledge my indebtedness to the elaborate works of Mr. J. Z. Laurence and Mr. J. Soelberg Wells, of London, and especially to the very comprehensive treatise of Professor Donders, of Utrecht, published in 1864 by the New Sydenham Society.

Chapter I.—Optical Considerations.

The eye is pre-eminently an optical instrument, and the phenomena of vision all depend upon the laws of optics. Hence, a knowledge of some, at least, of the elementary principles of light is essential to a correct appreciation of the physiology of the eye. The diagnosing of optical defects of the eye,—long and short sight, &c. &c., and their treatment with the scientific use of spectacles, require some knowledge of the laws of refraction, and the properties of convex and concave lenses.

The philosophy of the ophthalmoscope can hardly be understood unless the principles of both refraction and reflection are thoroughly mastered.

You will therefore, I hope, not consider the time ill spent if, before proceeding with the investigation of diseases of the eye—you review with me some of the elementary principles of optics which lie at the foundation of all ophthalmic science.

The *nature* of light is not known. I can no more tell you what light is, than your professor of physiology can tell yon what life is. We know that the sun shines, but how it shines we cannot tell.

"Two different theories have been advanced of the more intimate nature of light." "One, the *Newtonian* (*corpuscular*) conceives that each luminous point is constantly giving off a succession of luminous corpuscles which follow each other in uninterrupted succession on an imaginary line or axis like a string of beads on a rigid thread."

The *undulatory* theory (Christian Huychens') on the other hand considers space as pervaded by a subtle gaseous fluid or ether; that luminous bodies have the power of communicating to this ether a wave motion which affects the retina the same as vibrations of the air affect the auditory nerve.

Sir John Herschel, speaking of the great ingenuity of the undulatory theory says, "if it is not true it deserves to be."

The sun is the great natural source of light; as it shines by its own light it is called *self-luminous*. The fixed stars are also self-luminous; so is a lighted lamp and bodies in a state of ignition. But most bodies by which we are surrounded, are seen only by reflected

light. The light from an object seen by moonlight is reflected twice before it reaches the eye. The moon reflects the light from the sun, and the object, the light which it receives from the moon.

Every luminous object gives off, or radiates, in every direction, an infinite number of straight lines of light. Each of these lines taken alone is called a *ray* of light. A bundle of rays is called a *beam* of light when the rays run *parellel* to each other. When the rays *diverge* from a luminous point or are made to *converge* to a focus they are called a *pencil* of rays, thus :

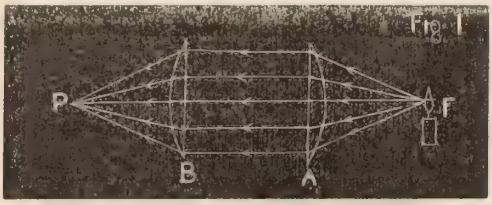


Fig. 1 represents a pencil of rays diverging from a flame F, after passing a convex lens they are rendered parallel and these parallel rays passing the second convex lens B, the rays are converged to the point (focus) P.

The parallel rays may be called a *parallel* pencil ; the diverging rays a *divergent* pencil, and the convergent rays a *convergent* pencil. The point where rays of light meet is called the *focal* point or simply a *focus.*

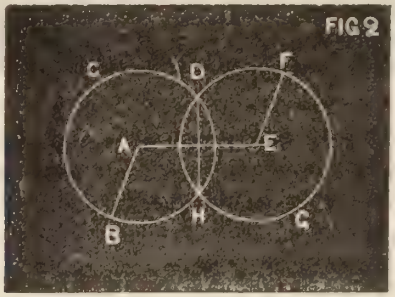
Strictly speaking, there is no such thing in nature as parallel rays ; the nearest approach we have to it are the rays of light we receive from the sun and the fixed stars. Practically, for our purpose however, we may consider rays of light parallel that are received by the pupil of the eye from objects that are twenty feet distant or any distance greater than that. Pencils of light from objects less than twenty feet distant are more decidedly divergent.

A good illustration of a divergent pencil can be obtained from a lighted lamp or candle in a dark room. If a piece of card board, with a small circular opening in it, be held near the lamp, you will have, upon the opposite wall, an illuminated spot of the same shape as the opening in the card, but very much larger.

This will prove not only that the rays *diverge*, but also that the rays proceed in straight lines.*

Convex lenses :—We shall now proceed to the consideration of convex lenses, which, for our purpose, is the most important part of the subject. Lenses are made of various transparent substances as amber, alum, quartz, glass, diamond, and even of ice. Those in ordinary use are made of glass. When the two surfaces of a convex lens have the same degree of curvature, the lens is said to be equi-convex. When one of the surfaces is flat or plane, the lens is called a plano-convex lens. Glass spectacles used by old persons for reading, &c., are commonly made double convex.

In order to simplify the subject as much as possible, let us confine our attention to lenses that are equi-convex.

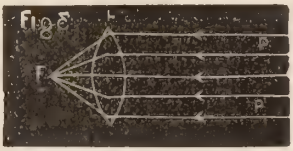


In fig. 2 let A be the centre of the circle B, C, D, of which A, B, is the radius, and let E be the centre of the circle F, G, H, of which the radius E, F, is equal to the radius A, B. The circle F, G, H, will be equal to the circle B, C, D. The part D,H, common to both circles, represent a section of an equi-convex lens. The line A,E, is called the *axis* of the lens, and the line D, H is called the *diameter*. The centre of the diameter (where it is intersected by the axis) is the optical centre of the lens.

Reading glasses, and burning glasses, are examples of a double convex lens. Many of you have, doubtless, seen the experiment of

(* Convergent pencils of light do not exist in nature. Parallel pencils or divergent pencils of rays can be rendered convergent by means of a convex lens. Thus in fig. 1, the rays diverging from F, are made to *converge* to P by the convex lenses, A. and B.)

setting fire to wood, paper, &c., by means of a burning or sun glass. The explanation of this is simply that the convex lens possesses the property of converging a portion of the sun's rays to a point called the focus.



In Fig. 3, P, P, represent a pencil of parallel rays converged to a focus at F by means of the double convex lens, L.

The focus for parallel rays is called the *principal* focus. It is always the same distance from the optical centre in the same lens. The length of the focus for parallel rays is, in equi-convex lenses, equal to the length of the radius of curvature.

The shorter the focus, the greater is the "power" or "strength" of the lens. A lens that can bring parallel rays to a focus at a distance of one inch from the optical centre of the lens, would be called a *one inch* lens. Another lens whose focus is two inches from the optical centre, is called a *two inch* lens, and so on. Convex lenses therefore receive their names according to the number of inches, or fraction of an inch, the principal focus is distant from the centre of the lens. The strongest lenses used for spectacles are what are called cataract glasses; they are worn by patients who have had their crystaline lenses removed. Their strength ranges from 2 to 4 inches focal length. The weakest spectacles that are ordinarily used have a focus of 36 inches. Convex lenses having a focus of 36 inches do not enlarge the letters of a book at the ordinary reading distance.

Let us now see what practical application we can make of this principle of convex lenses.

Supposing that a person accustomed to using convex spectacles, gets one of the glasses broken, and applies to you to learn the strength of the glass that would be necessary to replace the broken one, or in other words—to learn the strength of the glass that is still whole. How would you proceed? One method is to use the lens as a sun glass, and ascertain by measurement, how far from the glass, the sun's rays are brought to a focus. If you find, for instance, that the focus is 10 inches from the lens, you will have ascertained that the person has

been wearing glasses of 10 inch focus, or as they are sometimes called No. 10 convex, or simply + 10 (plus 10).

The method, however, that is usually adopted, depends upon a property of convex lenses that will be more fully explained further on.

If, for instance, you hold up a 10 inch convex lens at a distance of 10 inches from a white wall—the wall being about 20 feet from an open window, opposite—there will appear, behind the lens, upon the wall, an inverted, miniature picture of the window, and trees or buildings, &c., in front of the window. If the lens be held at a greater or less distance from the wall than the focal length of the lens, the inverted picture will be indistinct. Measuring the distance therefore that the lens must be held from the wall, to produce the sharpest picture, will give the focal length of the lens.

Suppose, now, that we bring the lens to within, say 5 feet of the window, and hold a sheet of white paper at the principal focal distance behind the lens, viz., at ten inches, we will find a change in the inverted picture, there will still appear distant buildings, trees, &c. but the sash of the window will be very indistinct. If, however, we move the sheet of paper 12 inches from the lens—that is, two inches farther from the lens, we will again see the image of the sash but scarcely any trace of the buildings, trees, &c. This experiment is an illustration of the fact that the nearer an object approaches the front of a convex lens, the farther will be its image behind the lens ; thus, when an object is 5 feet or rather 60 inches from the front of a 10 inch convex lens, the inverted image is found to be 12 inches behind the lens ; when 30 inches, it will be 15 in. ; when 20, that is, double the length of the focus, the image will be double the length of the focus behind the lens ; viz., 20 inches ; when 15 inches, the image behind the lens will be removed to 30 inches. As the object approaches the principal focal distance of the lens the image recedes much more rapidly ; thus, when at 12 inches, the image will be 60 inches ; when at 11, the image will be 110 inches behind the lens. When however we bring the object to within 10 inches of the lens—that is, at its principal focus, there will be no image formed behind the lens, as the rays after passing the lens will be parallel.

(I would strongly urge you, gentlemen, to perform all these experiments for yourselves, as in that way only can you become familiar with these important principles. These latter experiments can be performed best in a dark room—taking for an object the flame of a lamp or candle).

From the above we can easily understand the principle, 1st, that the *less* divergent the rays of a pencil (that is, the nearer they approach parallel rays,) incident or falling upon a convex lens, the nearer will the focus of the convergent pencil be to the principal focus of the lens. 2nd. The *more* divergent the incident pencil, the less convergent (the more nearly parallel) will be the refracted pencil, and the more distant will its focus be from the principal focus of the lens.

Questions of the following nature very often arise in optics, viz., the length of the principal focus of a convex lens being given, and the distance a certain object is in front of it;—to find how far behind the lens will be the inverted image of the object. Or to express it more technically, the length of the principal focus of a convex lens being given and the length of the divergent incident pencil, to find the length of the focus of convergent refracted pencil. Thus: Suppose you had the following question: A 10 inch lens is 60 inches from an object; how far behind the lens will be the inverted image?

This could be solved immediately, by actual trial, and measurement, but this is not always practical.

The rule given in some text books on optics is as follows: multiply the length of the divergent incident pencil, that is, the distance the object is from the lens, by the focal length of the lens, and divide by the difference; thus: $60 \times 10 = 600$, $60 - 10 = 50$, 600 divided by $50 = 12$; or $\frac{60 \times 10}{60 - 10} = \frac{600}{50} = 12 =$ the distance behind the lens.

There is another property of convex lenses which I must not omit to mention; namely, what is called it magnifying power.

When a convex lens is placed between the eye and an object,—the object being at a less distance from the lens than its principle focus, the object will appear enlarged or magnified. The shorter the focus of the lens, the greater is its magnifying power. Thus, a 4 inch lens has a greater magnifying power than an 8 inch lens; a 2 inch lens greater than a 4, and a 1 inch greater than a 2 inch lens. The 1 inch lens has, in fact, double the magnifying power of a 2 inch lens; a 2, double that of 4 inch; a 4 inch, double that of an 8 inch, &c.

The "power" of a lens is therefore inversely proportional to its focal length. For this reason a different form is used in expressing the "power" or strength of a lens. A 1 inch lens is taken as unity,

and as a 2 inch lens is just half the strength, it is simply expresed $\frac{1}{2}$, and as a 3 inch lens has just one-third the strength of a 1 inch, it is written $\frac{1}{3}$; a 4 inch is $\frac{1}{4}$ &c. We will find that this nomenclature is not only very convenient, but scientifically correct.

For example, suppose we have two lenses of 4 inch focus each, and we wish to know their combined "power" when used as one lens; we simply add their reciprocals thus $\frac{1}{4}+\frac{1}{4}=\frac{2}{4}=\frac{1}{2}$. The two lenses have, therefore, the magnifying power of $\frac{1}{2}$, which is the reciprocal of 2, and are consequently, together, equal to a 2 inch lens, which can be proved by actual measurement. Again, suppose we have a 6 inch lens, and a 12 inch lens, and we wish to know their combined strength, $\frac{1}{6}+\frac{1}{12}=\frac{3}{12}=\frac{1}{4}$ which represents the power of a 4 inch lens; the 6 and the 12 inch lenses taken together being equal to one lens having a focus of 4 inches.

To save repetition, I may here state that when a *concave* lens enters into combination with a *convex* lens, it has a neutralizing effect upon the convex lens. If we have a convex 6 and a concave 6 the one would neutralize the other,—thus $\frac{1}{6}-\frac{1}{6}=0$. But if the convex lens has the higher power, the concave lens simply weakens it—that is, lengthens its focus—thus, if we have a convex 6 and a concave 9 the result will be $\frac{1}{6}-\frac{1}{9}=\frac{3}{18}-\frac{2}{18}=\frac{1}{18}$, which represents the strength of one lens having a focus of 18 inches. If, however, the concave lens has the higher "power" it will simply be weakened by the concave lens,—the combination will be equal to a concave lens having a lower "power," or a longer focus than the concave lens taken,—thus reversing the last example, suppose we have a *concave* 6 and a *convex* 9, we will then have $-\frac{1}{6}+\frac{1}{9}$ or simply $\frac{1}{9}-\frac{1}{6}=\frac{2}{18}-\frac{3}{18}=-\frac{1}{18}$, which represents the strength of a *concave* lens having a focus of 18 inches.

This fractional nomenclature (taking 1 for numerator and the focal length of the lens for denominator) will assist us also in understanding the principle of the formation of images at different distances behind a convex lens, according to the distance of objects in front of it.

Let me remind you that when an object, for instance the flame of a candle, is placed in the focus of a convex lens, the diverging rays of light from the object are rendered parallel by the lens. Thus, a lens having a focus of 20 inches will render parallel pencils of light diverging from an object 20 inches from the lens. Bearing this in mind let us again try the solution of the following question, pro-

pounded not long since, viz. :—When an object is 60 inches in front of a 10 inch convex lens, how far behind the lens will be the inverted image of the object? Or, to express it differently, when a divergent pencil of light emanates from a point 60 inches from a 10 inch convex lens, at what distance behind the lens will the pencil be converged to a focus?

Now, we know that a lens of 60 inches focus, placed in the position of the 10 inch lens, would render the rays parallel that fall upon it from the object 60 inches distant. Were it possible, therefore, to divide the 10 inch lens into two lenses, one having a focus of 60 inches to render the rays parallel, the remaining portion would bring these parallel rays to a focus at its principle focus. Deducting then $\frac{1}{60}$ from $\frac{1}{10}$ will give the strength of the remaining portion of the lens $\frac{1}{10}-\frac{1}{60}=\frac{5}{60}=\frac{1}{12}$; the two parts then $\frac{1}{60}$ and $\frac{1}{12}$ are equal to the one lens $\frac{1}{10}$. And, as the $\frac{1}{60}$ will render the rays parallel from the object 60 inches distant, and these parallel rays falling upon the other part $\frac{1}{12}$, they will be brought to a focus at the principle focus of this part, viz: at 12 inches from the lens. Let us illustrate this with another example. Suppose that an object is 30 inches in front of a convex lens of 10 inch focus, and we wish to know how far behind the lens will be the focus of a pencil of rays diverging from a point in the object. We will have $\frac{1}{15}-\frac{1}{30}=\frac{2}{30}=\frac{1}{15}$; this $\frac{1}{15}$ represents the power of a 15 inch lens, which we know will bring the parallel rays to a focus at 15 inches behind the lens.

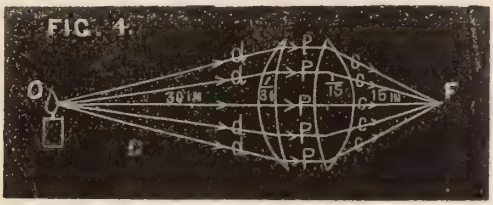


Fig. 4 illustrates this; O represents an object 30 inches from a ten inch convex lens, the lens supposed to be divided into two parts, one having a focus of 30 inches, and the other a focus of 15 inches. The 30 inch lens refracts the rays of the divergent pencil d, d, d, d, so as to render them parallel, as shown at P, P, P, P, P. These parallel rays, meeting the 15 inch lens, are again refracted and are converged to a focus at F, which is the principle focus of the lens, viz., at 15 inches.

Fig. 1, page 3, represents a 10 inch lens, at a distance of 20 inches from an object, F. The lens is supposed to be divided into two equal parts, of 20 inch focus each: the first half renders the diverging pencil parallel, and the second half converges the parallel pencil to a focus, at 20 inches from the lens; $\frac{1}{10}-\frac{1}{20}=\frac{1}{20}$.

(Dr. Giraud-Teulon, of Paris, has ascribed the origination of the above theory to Mr. J. Z. Laurence, of London, to whom we are very much indebted, for his praiseworthy efforts to popularize this, hitherto neglected, field of Physiological and Pathological Optics.)

Let me next direct your attention to certain optical considerations, which have a most important application, in the treatment of optical defects of the eye.

You may remember that in a former experiment, a 10 inch lens was held ten inches from a white wall, so as to show the miniature inverted picture of the window, &c., 20 ft. distant; and that when the lens was brought to a distance of 60 inches from the window, it was found that the image of the window was formed 12 inches behind the lens, instead of 10 inches, and that at 10 inches, the image was so indistinct as to be scarcely recognizable.

Now suppose that a 12 inch lens be immovably fixed 12 inches from the same wall, it will then be in a proper position to bring parallel rays to a focus on the wall, where it will form an inverted picture of the window, and objects at a distance beyond the window.

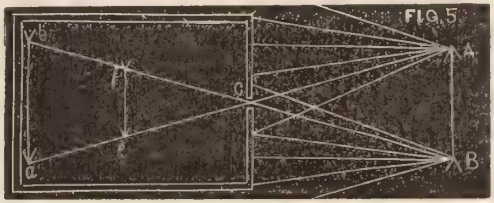
If we now bring the flame of a lamp, for instance, to a distance of 60 inches from the lens, no distinctly defined image of the flame will appear upon the wall; but if, by any means, we can render the pencil parallel that diverges from the flame, the 12 inch lens will then converge it accurately to a focus upon the wall, where we will have an inverted image of the flame.

From the knowledge that we have now obtained, we know that a 60 inch lens placed in front of the 12 inch lens will render these rays parallel. All that we have to do then is to combine a 60 inch lens with the 12 inch lens: the 60 inch lens to render the rays parallel that diverge from the flame, 60 inches distant, and the 12 inch lens to converge these rays to a focus, at the principal focal length of the lens. This is exactly what we do in supplying old people with convex spectacles. Their eyes are constructed to bring parallel rays to a focus, on the retina; but the rays from near objects are too divergent to be focussed upon the retina without artificial aid; this deficiency is what we supply with suitable glasses.

Before leaving the consideration of optical lenses, there is one subject to which I wish to direct your attention; namely, the formation of an inverted image behind a convex lens.

Many of you are, probably, familiar with the fact, that when light is admitted into a darkened room, through a small orifice, there appears upon the opposite wall of the room, an inverted, dim, shadowy picture of buildings, trees, &c., in front of the aperture. This can also be seen, on a smaller scale, by holding a sheet of white paper a few inches from the key-hole of a darkened hall.

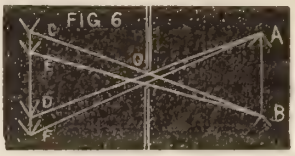
The philosophy of this is seen in Fig. 5.



Let A, B, represent the position of a flame of a lamp that is a short distance in front of an aperture of a darkened box. Pencils of divergent rays of light radiate from the apex of the flame in every direction; one of these pencils is represented in the figure to illuminate the end of the box, and one of the rays escaping through the small orifice *c*; this ray passes in a straight line to the back of the box, and strikes the point *a*, which it illuminates.

Rays of light diverge from the lower part of the flame, also; one of these rays is shown to enter the aperture *c*, and to pass to the back of the box at *b*. In a similar way it might be illustrated that pencils of light radiate from every point in the flame A, B, and that one ray from each point passes into the box and illuminates a portion of the back. In this way we get an illuminated spot at the back of the box, which is an exact counterpart of the flame in front of the box, but *inverted*, the apex of the flame pointing downwards. The reason that the picture is reversed is that, as rays of light (in the same medium) pass in straight lines, a ray from the top of the flame, after passing the aperture, must necessarily pass to the lower part of the back of the box; and a ray from the lower part of the flame must necessarily (in moving in a straight line) pass to the upper part of the back of the box. You will observe, also, that the

size of the image depends upon its distance behind the aperture; if the image is as far behind the aperture, as the object is in front, the image will be of the same size as the object, if half the distance, half the size, as seen at f, g.



If, in the above experiment, the aperture be enlarged, it will be found that the image at the back of the box will become much less distinct; the more the aperture is enlarged, the more indistinct will be the image. The reason of this indistinctness in the image is that, when the aperture is enlarged, a number of diverging rays from one point in the flame pass through the aperture, and each one repeats the image, so that the parts of the image overlap each other.

This is shown in Fig. 6. A, B, represents the flame of the lamp, and C, E, D, F, the image behind an aperture. The aperture is supposed to be just large enough to admit two divergent rays, each of these rays produces a separate image; thus, the point A is repeated twice at D and F, and the point B is repeated at C and E. The larger the aperture, the more light is admitted, but the more indistinct is the image.

If now, a convex lens be inserted in the enlarged aperture, these divergent rays that enter the aperture (from every point of the object) are converged to a focus; thus in

Fig. 7.

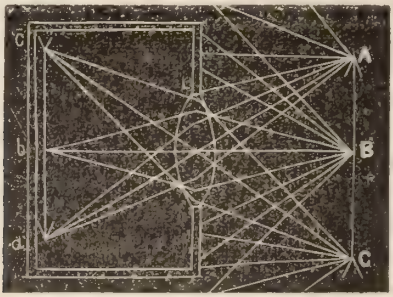


Fig. 7. A C represents an object in front of a convex lens, and *a c* the inverted image behind the lens. Rays diverging from the point A and falling upon the lens L are brought to a focus at *a;* rays from B are similarly focussed at *b*, and so on. In a similar manner, diverging rays from every point in the object A C that enter the lens are brought to a focus in the image between *a* and *c*. We will then have in the position of *a c* a distinct inverted image of the object A C. If this image is received upon a sheet of white paper we can see it only upon its front surface; but if it is received upon thin oiled paper, or upon ground glass, we can see it from behind; and if, while viewing the image from behind, the ground glass be removed, we can still see the inverted image (or at least a portion) occupying the same position as the ground glass just occupied—being suspended, as it were, in the air, and forming what is called an ærial image. In order to see this ærial image under favourable circumstances, one eye only should be used, and should be in a line with the lens and the object, and should be at least ten inches behind the position of the inverted lens.

Chapter II.—Optics of Normal Eye.

The human eye, from before backwards, is about one inch in diameter. Its transparent media are the cornea, aqueous humour, crystaline lens, and vitreous humour. This combination, with the convexity of the cornea, is equal to a convex lens having a focus of about one inch (more accurately $\frac{18}{20}$ of an inch.)

When a normal eye is directed to a distant object (*i. e.* in a state of rest), parallel rays of light are brought to a focus upon the retina, and a very minute inverted picture of the object is sharply defined upon that membrane. If the sclerotic coat be removed from the back of the eye of an ox, and the eye be placed in an aperture of a darkened room, with the cornea looking, for instance, towards the opposite side of the street, an inverted image of the buildings, &c., in front of the aperture will be seen at the back of the eye.

The impression that objects make upon the retina, is conveyed through the optic nerve to the brain, but in what manner this communicates to the mind a knowledge of the appearance of objects, is more than we can tell. We can simply say with Potterfield, that "God has willed it so."

We are aware, however, that although the eye may be free from

disease, and the connection between the retina and brain in every way perfect, if the optical mechanism of the eye be in any way defective so as to produce ill defined images upon the retina,—vision will be indistinct, and that the distinctness or indistinctness of vision will be in exact proportion to the distinctness or indistinctness of the inverted picture. Hence the necessity of understanding the optics of the eye in order to comprehend the pathology and treatment of the numerous optical defects to which it is liable.

Case 1. Let me here take an example. A few weeks ago a physician of this city sent a patient for my advice, fearing that he was losing the sight of his left eye. Upon examination, I found that he had what we call "paralysis of accommodation" of that eye.

He could see distant objects with perfect distinctness, but near objects he was unable to define; he could not read large type unless the letters were very large, and several feet from the eye. The eye was, in fact, simply passive, like a convex lens, or a camera-obscura with the screen to receive the image immovably fixed at the principal focus of the lens, and could only bring parallel rays to a focus on the retina.

I found that by rendering the diverging rays parallel, by means of a convex lens, he could see near objects distinctly; by placing a six inch convex lens before that eye, he could read fine type at six inches, with a 10 inch lens at ten inches, with an 18 inch lens at eighteen inches, &c. &c. The 6 inch lens rendered the rays parallel that diverged from the letters six inches distant, and these parallel rays falling upon the eye were brought to a focus upon the retina. [A 6 inch lens does not increase the apparent size of letters one-half, whereas this patient could not see letters ten times the ordinary size at six inches, or any distance less than about two feet from the eye.] The 10 inch lens rendered the rays parallel from objects ten inches distant, and the 18 inch lens from objects eighteen inches distant.

The eye was unable to bring diverging rays to a focus upon the retina; in other words it had lost the power of "accommodation." (We can temporarily paralyse the accommodation of the eye by applying a strong solution of Atropine.)

A normal eye differs from the glass lenses we have been describing in the fact that it can, not only focus parallel rays upon the retina, but also rays that diverge from objects as near as from four to six or eight inches from the eye. When parallel rays fall upon a 1 inch convex

lens, they are brought to a focus one inch behind the lens, but if an object, for instance the flame of a lamp, be brought to within four inches of the lens, we know that the focus will fall farther than one inch behind the lens. If we wish to receive the inverted image of the lamp upon a screen, the screen must be held one inch and a third behind the lens.

Now when an object is brought to within, say four inches of the eye, it has no power to move the retina backwards to receive the image that would be formed behind that membrane, but, what answers the same purpose, it has the property of so far increasing its refractive power, as to be able not only to render parallel, these diverging rays, but also to focus them upon the retina. This increase in the power of the eye, is equal to the addition of a 4 inch lens in front of an eye that has its "accommodation" paralysed, as a 4 ineh lens renders rays parallel that diverge from objects four inches distant.

Fig. 8 represents the section of a normal eye. When it is accommodated for distant objects parallel rays P, P, are focussed upon the retina at F, while diverging rays from O, would form a focus at *fd*. When, however, the eye is accommodated for the near object O, these diverging rays are focussed upon the retina at F.

The manner in which this increase in the refractive power of the eye is effected is still a disputed point. Most physiologists however are now inclined to the theory that it is caused by an increase in the curvature,—a thickening from before backwards, of the crystaline lens.*

* The accommodotion of the eye was at one time believed to be produced by the external muscles, but it is now ascertained that the accommodation can remain perfect with all the external muscles paralysed.

The iris was thought, by others, to have the power of increasing the refractive power of the eye, but it was proved by a case that occurred in Dr. Von Graefe's practice that accommodation can still be effected with entire absence of the iris.

Helmholtz and Cramer have proved by means of the opthalmometre, that when the eye is accommodated for a near object it undergoes the following changes:—

The "near" and "far" point.—The nearest point to which objects can be brought to an eye and be seen with perfect distinctness, is called the "near" point, and the farthest point of distinc vision is called the "far" point.

In a normal eye the "near" point is about seven inches from the front of the cornea, and the "far" point is at an unlimited distance. In childhood, however, the "near" point is about $3\frac{1}{2}$ inches from the eye and recedes as age advances. At the age of forty the "near" point of a normal eye is nearly eight inches from the eye.

When the "near" point recedes to a greater distance than eight inches from the eye it becomes inconvenient; such an eye is called *presbyopic* or long-sighted.

When the "far" point is not unlimited, but is at a definite distance from the eye, as for instance from six inches to four or five feet from the eye—such an eye is called *myopic* or short-sighted.

Range of Accommodation.—The distance between the "near" and "far" point in any eye, is called the "range of accommodation." If a person can read distinctly very fine type at four inches from the eye, and can also see clearly at an infinite distance the range of accommodation would be said to equal $\frac{1}{4}$ because, when such an eye is directed to objects at an infinite distance, (accommodated for parallel rays) in order to see clearly objects only four inches distant, it is necessary to increase the curvature of the crystaline lens, or in other words the "power" of the eye to an extent equal to the addition of a 4 inch convex lens; the power of which is expressed by $\frac{1}{4}$. If a person's "near" point is at eight inches from the eye, and his "far" point at an infinite distance. his range of accommodation would be said to equal $\frac{1}{8}$.

If the "near" point of a myopic eye be 3 inches, and the "far" point be 12 inches, we get the range of accommodation by the equation $\frac{1}{3}-\frac{1}{12}=\frac{1}{4}$.

1st. The pupil contracts; 2nd. The pupillary edge of the iris moves forward; 3rd. The peripheral portion of the iris moves backwards; 4th. The anterior surface of the lens becomes more convex (arched); 5th. The lens does not change its position; 6th. The cornea retains the same degree of curvature.

ART. II.—*Abstract of Proceedings of Buffalo Medical Association.*

TUESDAY EVENING, January 2d, 1866.

The Association met pursuant to adjournment, and was called to order by Dr. Congar, President pro tem.

Present—Drs. Congar, Miner, Shaw, Cronyn, Gay, Little, Boardman, Ring, Dayton, Johnson.

The minutes of the last meeting were read and accepted.

DR. MINER related the following case of operation for *impassable stricture*, which, he said, would illustrate several very important practical points in the management of similar cases, and was interesting mainly on that account: Herman Strootman, aged 14 years, came under his care July 6th, 1865, and gave the following history of his case: Fell, about three years since, through an iron grating, striking heavily upon the perineum, which caused great swelling, pain and difficult urination. The swelling abated gradu ally, and no instrument was passed into the bladder at that time. In about six months there came gradual difficulty in passing urine, which increased until it became almost an impossibility. Instruments could not be passed when the attempt was made, and the warm bath offered all the relief he could obtain. A great many unsuccessful attempts were made to relieve the stricture, until finally he was admitted to the Hospital of the Sisters of Charity, and was there treated several weeks during the previous winter, but without relief; daily attempts to pass instruments into the bladder having failed, he returned home, where abscesses formed in the perineum and opened spontaneously. Urine also escaped through the openings thus made for a few weeks, and then the passage closed, urine passing constantly by drops the natural way, with great effort and constant pain, often so great as to compel resort to the warm bath, which always afforded some relief. Was treated, after leaving the hospital, by a great many physicians, with medicines only. At the time of application to Dr. M., the urine could be passed only by drops and a resort to the warm bath three and four times daily. The clothes and bed-clothes were wet by the constant discharge, which was accompanied by strong involuntary effort; the bladder having taken on very much the action of a contracting uterus. The cries and screams of the patient were terrific, and life had become almost unendurable. Attempts were made

to pass the smallest sized bougies, repeating the efforts for three or four days, leaving the instrument in the stricture as long as possible, with the hope of forcing some dilatation. A very small flexible English catheter would engage quite frequently in the contracted portion, at length in attempting to withdraw it, it separated, leaving about half an inch of the instrument inserted in the stricture. Urination was now impossible, and an operation unavoidable. Assisted by his pupils, the operation for impassable stricture was successfully made in the usual manner, with less difficulty than is common in such cases. Dr. Mixer arrived in time to afford assistance in the dressings, and observe the thickened condition of the strictured portion. Fully an inch in length of the membranous portion of the urethra was a dense and firm, fibrous structure, of at least half an inch in thickness before reaching the centre. The catheter which had been broken was first removed, and beyond its point it was impossible to trace the track of the urethra. Fortunately, the healthy portion posterior to the stricture was considerably dilated, as is common in such cases, and was readily found after dividing the diseased portions. A lead catheter was introduced and retained until the wound healed over it, which required but a few days. It was then removed, and carefully replaced during the first few days, and the case dismissed with the direction that the catheter be removed and cleaned, and only worn a part of the time—nights only. Six weeks after this he met the patient upon the street, and upon careful inquiry found that the instrument had never been removed, the boy thinking himself all right, and better off to remain without further trouble. After explaining the necessity of so doing, the patient was brought for change of instruments, or removal of the one which had done such admirable service. Attempts were made to remove the instrument, but they were unsuccessful. The nature of the case being suspected, chloroform was given to complete anæsthesia, and after considerable gradual and increasing force had been applied, the instrument was removed. Upon the end which had rested in the bladder was closely adherent a round dense secretion—a stone, an inch in length and something more than half an inch in diameter, which had retained its connection with the instrument, and sustained the force which had dilated the urethra and allowed the

passage of a substance at least twice the size of the natural channel. Since this time the boy has passed once or twice a week a full sized catheter, and reports himself perfectly well.

The practical points are too obvious to require mention. Under all ordinary circumstances, to have an instrument break in a stricture would be exceedingly embarrassing, and suggests care in using the flexible frail instruments for such purposes. In this case, since the operation for perineal section had nearly been decided upon previous to the accident, it was in no way important, and only hastened a measure which otherwise would have been very soon adopted. The natural hesitancy which every surgeon feels in attempting this operation who has ever made it, had operated to cause delay and attempts to avoid it; and perhaps the necessity was not made certain any too early. Comparatively few surgeons have attempted without guide to trace the obliterated track of the urethra and find it again near the bladder. It is justly considered the most difficult and uncertain operation in surgery, and, withal, attended with great danger. Whoever has had experience, would not unhesitatingly attempt it, and although he had twice before successfully made it, he hoped occasion would never again demand of him such an operation.

The danger of leaving a catheter in the bladder for a long time without removal, was forcibly illustrated in this case, as also was the dilatibility of the urethral canal in its normal condition. If a stone of that size can be slowly and gradually extracted through the urethra without serious injury to its mucous membrane or walls, it seems probable that practical deductions might be gathered from such facts, that possibly stones which have heretofore been crushed in the bladder might have been removed entire through the urethra. The results of this case were remarkably satisfactory. The boy, whose life had been one of untold misery, was restored to health, vigor and comfort.

Dr. Cronyn said he was much interested in the case reported by Dr. Miner, and thought the doctor entitled to credit for his success in the operation. Had often seen the deposit spoken of, and thought it usual.

Dr. C. L. Dayton presented two specimens of tape worm, and believed that the head had in both cases been expelled with the

body, but had not made a microscopical examination. The first patient was a man of middle age, and the second a young lady of eighteen. Gave ℥i of kosso in ℥i doses every four hours in each case.

Dr. CRONYN remarked that the cases related by Dr. Dayton brought to mind the superior value of kosso. Had lately given it to a patient who had taken other remedies in vain. The patient soon passed thirty feet of tape worm, and a few days after resort was again had to the remedy, with the result of the passage of about one hundred feet.

Dr. DAYTON finds that kosso often causes vomiting unless preceded by a cathartic, the operation of which will almost invariably prevent vomiting.

Dr. MINER thinks that kosso is usually given in too large doses, and believes that half the usual quantity is sufficient.

Dr. GAY wished to call the attention of the association to the use of sub-sulphate of iron in diphtheritic diseases. He uses this preparation in preference to the other ferruginous preparations in this disease, and thinks it will be found superior to them. His formula for the preparation and use is—sol. subsulphate ferri gtt xx—xxx syr. simplex. aqua mentha aa ℥i. Dose, a teaspoonful every two hours for children. Dr. Gay called the attention of the association to this subject at the last December meeting, but was then incorrectly reported as making the above remarks in regard to the muriated tinct. ferri instead of the sol. sulphate.

Reports on prevailing deseases being called for, variola, varioloid, diphtheria, typhoid and intermittent fevers were reported as prevailing.

Dr. BOARDMAN reported that he had found revaccination to take more readily than usual, that persons on whom revaccination took well from two to five years ago, take revaccination readily now.

Dr. JOHNSON had remarked the same fact, and had seen several marked cases of the kind alluded to.

Dr. CRONYN would like to inquire if sarrasenia had been prescribed in variola by members present.

Dr. MINER said he had not used it, and believed it entirely useless in that class of diseases, and thought no one, after having read the reports of it in the journals, would think it worthy a trial.

On motion, the Association returned to voluntary communications, when a discnssion was had upon the merits of sarracenia in variola.

Dr. CRONYN spoke at considerable length and very favorably of it in that class of diseases, and will at no distant day report a number of cases in point.

Dr. DAYTON tried it thoroughly when health physician and discarded it, believing it useless, and supposed that to be the general belief.

Dr. RING, Chairman of the Auditing Committee, reported that the Committee found Dr. J. A. Peters' accounts correct. Report accepted.

Dr. GAY moved that the thanks of the Association be tendered to Dr. Peters for the efficient and acceptable manner in which he has performed the duties of Secretary. Carried.

Adjourned. THOS. M. JOHNSON, *Secretary.*

ART. III—*Clinical Remarks upon Surgical Cases in the Buffalo General Hospital — Excision of the Hip-joint — Removal of Fatty Tumor.* BY J. F. MINER, M. D.

GENTLEMEN:—Your attention is first called to the condition of the child from whom we exsected so large a portion of the humerus. The success of this operation has been so far, complete; the child has at no time been made very sick; the discharge of pus has greatly lessened, and the parts look now as though it would soon cease entirely: the arm has shortened up considerably, but the motions of the forearm and hand are nearly perfect, and it is now giving promise of the most satisfactory results.

I will also fulfill my promise of reporting results in the case of *lumbar abscess* treated by puncture. It will be recollected that differences of opinion upon the point of treatment were announced and explained, at the time of the operation, and on that account partly, I return, to report the result so far as it could be determined by the few weeks he remained in the hospital after it was made. From the time the pus was allowed to escape, there was an entire freedom from all pain; he was soon able to assume the erect position, and no longer stood stooping. Pus continued to escape in small quantities for about ten days and then ceased

entirely. The patient remained for a few weeks to assure himself that he was well, and in obedience to advice to keep quiet; he then left, declaring himself as well as ever. Remember now, that *I* do not report him well; that he feels well, is not proof that his malady will not return to torment him, and if the pus did arise, as was supposed, from disease of the vertebræ, lumbar abscess or psoas abscess will yet again appear, and our patient will be convinced that he is not well. I should be most happy to be able to report perfect recovery of so grave a malady, but I would rather warn you not to form your opinions too hastily, or too early conclude that your treatment is productive of cure. If this patient, who now appears to be quite well, has no return of this trouble, it would be natural to think, and say, that early puncture had been productive of cure, in a case of lumbar abscess, but I shall propose other explanation which, though it gratify professional pride less, is probably much nearer the truth. It is more probable that we have made mistake in diagnosis—that we have called a simple abscess by a worse name, and supposed it had its origin in caries of the vertebræ, when in reality it was not connected with such disease, rather than that any plan of treatment should have so readily cured a disease consisting in organic change. The result then, though it now appears favorable, may yet prove otherwise. If it should continue, it throws doubt upon the diagnosis, and does not prove anything, only that we punctured what we supposed was lumbar abscess. If it was, it will almost certainly re-appear; but whatever might have been its nature the operation which was made under some protests, was productive of good, was undoubtedly proper and desirable; the results show this—show that the treatment was proper, but still leave many other points in doubt.

Excision of the Hip-joint or of the head and neck of the Femur. Excision of the hip-joint as it has generally been called, is an operation so rarely made, and one attended by so much danger to life that I will preface by a brief history of this case, from the commencement of the disease up to the present time.

Mary Frederick, when about six years old, without any known injury, commenced to complain of pain in the knee-joint, and to avoid motion of the affected leg. She had previously been quite healthy, and there was no supposed constitutional bias to disease of any kind. In a few weeks after the first complaint, I was called

to see and advise in the case. An extension splint was carefully applied and faithfully tested. At first it seemed productive of some relief from pain, but it was soon apparent that suppuration was taking place, and that the accumulated pus must be allowed to escape; puncture was made, and quite a quantity of offensive pus discharged. Suppuration never ceased from that time, and if the exit of pus became obstructed, pain was severe until free escape was allowed. Opium has been the chief dependence for relief of pain, and motion in the effected joint has been for the most part impossible on account of the severity of the pain it produced.

About two years from the commencement of the disease the patient is presented before you for removal of whatever of dead bone may be found. The history and appearances are so characteristic as to leave no doubt of the presence of disease of the structures entering into the composition of the joint; that the acetabulum is, or is not, involved in this disease, is impossible to determine, and I have never made much effort to ascertain the condition by probing, being perfectly satisfied by the appearances—by the position and motions of the foot and leg, and the continued discharge of pus—of the presence of disease of bone. When our patient is fully under the influence of chloroform, we shall be able perhaps to judge somewhat of the amount of disease of the joint, by the motions of the roughened and irregular articular surfaces. In my mind there is no doubt of the propriety of the operation we are about to make; its results are uncertain, still there is no ground of expectation without it. I have for several months considered the necessity as sufficiently settled and have fully determined to try the chances it offers. It is a private patient, admitted this morning for the operation, thus affording no opportunity for consultation with my colleagues, and consequently no one of them should be held responsible for advising it.

A longitudinal incision, you observe, is made about three inches in length, passing directly over the point of the great trochanter; the periostium is carefully separated from the bone, to below the diseased portion, and the head, neck and great trochanter removed. The hemorrhage is exceedingly small, and no ligatures are required. The cavity of the acetabulum is not diseased, but you will observe that the head of the femur is nearly destroyed by the ulcerative

process which has been going on. The specimen is a representative one, and whatever may be the results of the case, will be valuable and instructive.

Left to themselves such cases nearly always prove fatal, life being destroyed by the slow processes of exhaustion and hectic irritation. If, then, excision offers any ground of expectation, certainly our little patient is entitled to the benefit. In this case though the disease is extensive in the head of the bone, still it is confined to it, and does not extend to the ascetabulum, and I have great expectation of favorable results; it appears probable to me, that such disease of bone may be removed without great risk of life—that the operation will prove successful in nearly as great a proportion of cases, as other capital operations. I shall dress this leg with simple water dressing, and shall apply an extension and counter-extension splint which I have extemporized from a crutch, one side cut out so as not to press upon the thigh, and admit of ready dressing. I have a splint made for the purpose, but as the one described looks so nicely I shall use it for the present. It has advantages over all others; it is simple and convenient, it is yet efficient and satisfactory. Any dressing which will keep the leg moderately extended will answer all indications It will not be attempted to keep it extended as long as the other; it will contract, but if the disease disappear we shall believe we have saved our patient from death, and be thankful that the shortening is not much greater, rather than complain because there is any. This case will interest you all, and I will see that you have a report of the results, either verbally or through the pages of the *Buffalo Medical and Surgical Journal.*

Fatty Tumor.—These growths are quite common, appearing upon almost all parts of the body. This one, upon the outer aspect of the leg, has grown so large that the patient desires its removal mainly on account of its weight in walking, and the inconvenience of having it dangling from the leg. These tumors are peculiar, exactly similar to natural fat in their structure; there are but few vessels in their composition, and consequently unattended by much hemorrhage in removal. The medical treatment of such growths is wholly unsatisfactory, and it is better to attempt nothing in that direction.

A great variety of medicines have at different times been prescribed. Iodine now standing at the head of medicines of its class has been greatly used for such purposes, but as before remarked, medical treatment is useless. Surgical interference is more proper, and is often attended by satisfactory results.

ART. IV—*Clinical Cases in Bellevue Hospital College. Reported by* FRANK KING.

Fungus Hæmatodes.—Prof. Hamilton presented I. A., aged 32 years, with a fungus hæmatodes of upper lip and left cheek, connected with medullary carcinoma at its base, engrafted on a nervus maturna; these are not malignant at an early period of life, but in advanced age they are liable to take on a malignant growth. He had always enjoyed good health till about five weeks ago, when a hemorrhage commenced from the gums, and a small tumor appeared opposite the incisor teeth of upper jaw, which was removed a few weeks after by ligature, but the disease has rapidly returned, and also attacked the nevus on the face. The prognosis of an operation is unfavorable, but unless something is done, it will shortly kill him. The disease is limited, as far as the bone is concerned, to the floor of antrum and immediate neighborhood. With the view of stopping a large portion of its supply of blood, an incision is made from the angles of the mouth a little upwards and outward, previous to the removal of the bone, and the coronary arteries ligated. The diseased bone and the nevus were next extirpated, and the bleeding arrested. He was then removed. During the night he took considerable nourishment, and experienced no difficulty in deglutition, doing well. Next morning Prof. Hamilton made a plastic operation, covering the cavity formed by the removal of the sub. maxillary and the nevus, taking the flap from the left side of the neck, and dressing the wound with lint smeared with simple cerete, over which is placed cotton wool, in order to make the requisite amount of pressure, without strangulation of the tissues with a bandage around the head. He rallied from the second operation, and appeared to be doing well; in the evening he was attacked with a severe pain in the side, and next morning marked dullness was discovered in the plural sac; he gradually sank and died a few days after the operation.

The post-mortem revealed the lungs enlarged and envolved in medullary carcinoma, the plural sac contained blood from the rupture of a vessel, showing that the patient died from internal hemorrhage. He also had what appeared to be a large hydrocele; the most-mortem disclosed it to be a hydrocele disguising a medullary carcinoma of the testicles. The mesenteric glands also were effected with the same disease.

Excision of Elbow.—Excision of this joint may be required on account of caries or necrosis of the articulating surfaces of these bones, or when permanent anchylosis exist caused by fracture, or in cases of compound complicated fractures in this joint. The operation is usually successful, a capsular ligament is formed covered with synovial membrane, and a very good joint left, when the general system of the patient has been properly attended to, and when the disease is not extensive, involving the neeessity of cutting into the medullary canal of any of the diseased bones, for in this there is always danger from suppuration and pyæmia. The incision should be made on the posterior surface, on account of the important vessels, nerves and muscles on the anterior, which must not be injured; it may be made in the form of an H or T, or by two longitudinal incisions connected by a transverse incision. The patient, aged about 40, has had disease of this joint for many months. Prof. Wood prefers the H incision, made extensive, for the free escape of pus, from an abscess extending as high up as the insertion of the deltoid muscles, he generally leaves a small portion of the olecranon process, with the periostium, removed for the production of new bone. It is dressed with a leather splint, and the arm placed half way between pronation and supination. Patient doing well.

Extro-version of Bladder.—L. D., has a congenital malformation of the bladder and penis, The bladder protudes above the pubis, its posterior wall forms parts of the anterior wall of the abdomen, the surface of the tumor is red, exceedingly irritable, and covered with mucus, thus protecting it somewhat from the atmosphere. The orifice of the ureters open at the inferior part of the tumor, from which the urine constantly dribbles. The penis is split its entire length on the upper surface to the urethra. In this case the testicles and scrotum are well developed; sometimes they are

absent, or exist in a rudimentary state. Operations for the removal of this deformity have been made, but generally without success; all that can be done is to keep the parts clean, and the use of a closely-fitting cap of silver or gutta-percha, with a bottle to receive the urine.

ART. V.—*Successful Removal of Intra-Uterine Tumor.* By JOHN MEACHAM, M. D., *Racine, Wis.*

I was called in October last to visit Mrs. Bankers, of Lyons, Walworth county, in this State, who had been five years suffering from the presence of an immense uterine tumor, which reached as hign as the umbilicus. I found by a careful examination with the uterine sound that the tumor had its attachment at the very fundus of the organ, for I could pass the instrument completely around the morbid growth to within two or three inches of that portion of the uterus. The os was not large, but sufficiently so to enable me to make the examination, and arrive at the conclusions stated above. She was very anxious to rid herself of her long carried burden, and strongly urged me to undertake an operation for its removal, if I thought there was a possible chance of her surviving it. By the speculum I could get a very excellent view of the portion of the tumor that presented at the mouth of the womb. It had a light and shining surface, like fibrous tissue, and was hard and unyielding to pressure like that structure. Her constitution had very much given way from the long continued presence of the tumor. She was obliged to evacuate the bladder every few minutes, from the pressure of the morbid growth upon it; the bowels scarce ever moved without the aid of laxatives; the limbs were œdematous. She was greatly emaciated; the countenance very sallow, and her general appearance indicated far advanced malignant disease. My opinion, however, was that the tumor was fibrous in character, and not malignant, and that an operation might prove successful, and that the only possible way to remove it was by ligature. Dr. Darling, of Burlington, who was with me at the time, and whose patient she had been, concurred with me in opinion.

I procured at the instrument-makers a long, curved, double

canula, so arranged that the tubes could be detached from the fastenings which held them together, and separated the one from the other. These were now armed with a very strong and hard twisted, silken cord, passing up one tube, down through the other, and projecting sixteen inches from the end of either. The tubes were now passed together into the womb, along its floor, until it reached the inferior and posterior attachment of the tumor. They were then separated, and one tube brought over to the superior surface of the tumor, on one side, and the other upon the other side, in the same manner, until they approximated. It was now found that the circumference of the tumor, at the point encircled by the ligature, was eighteen inches. This was readily told by the amount of the silk cord used in surrounding it. A double slide was now passed over the tubes, binding them strongly together, and one end of the cord securely fastened to an eye attached to the slide. Very firm traction was now made upon the cord, as its strength would warrant, and it was firmly secured. A large anodyne was given, and the patient allowed to rest for twenty-four hours; at the end of which time the cord was again powerfully drawn upon, when it was ascertained that a progress of three inches had been made towards cutting off the tumor. This process was continued for eleven successive days, when the canula and cord came away, and soon after by a violent contraction of the uterus the whole dead mass was expelled. There had been slight uterine efforts for three or four days prior to its final separation, accompanied by a very fetid discharge. The weight of the tumor after these eleven days of strangulation was nine pounds, and its hardened structure was as apparent as at the day of ligation.

The patient has been improving rapidly since, and only regrets that she had not been operated upon before.

ON THE TREATMENT OF GUN-SHOT WOUNDS.—With reference to Dr. Smart's letter on the plan, to which he ascribes novelty, of paring the edges of gun-shot wounds, converting them into simple incised wounds, and thus aiming at union by first intention, it may be of interest to remind your readers that this treatment was used and described by Larrey as applicable to gun-shot wounds of the face. The references are: "Memories de Chirurgie Militaire," tome iii, p. 258, et tome iv, p. 240.

JOSEPH BELL, F. R. C. S;

London Lancet, April, 1865.

Miscellaneous.

Fifty-Ninth Annual Meeting of the New York State Medical Society.

The Fifty-Ninth Annual Session of the New York State Medical Society commenced at the City Hall, Albany, Tuesday morning, 6th instant, at 11 o'clock.

The Society was called to order by Dr. Henry W. Dean, of Rochester, President, and prayer was offered by Rev. Mr. Bidwell.

The President then delivered his inaugural address.

Dr. Cobb moved that a committee of three be appointed to extend an invitation to such members of the Legislature as belong to the medical profession, to attend the meetings of the Society during its sessions. Adopted, and Drs. Cobb, Williams and Bissell were appinted.

The Chair announced the Standing Committees.

There were present seventy-five permanent members, sixty-five delegates from County Societies and Institutions, and about fifty invited members.

Dr. Kennedy, of New York, offered the following:

Resolved, That the Medical Society of the State of New York, now in Convention, in view of the importance of the bill now before the Legislature, and which has passed the Senate, known as the "New York Health Bill," very respectfully ask the Assembly to concur with the Senate, in order that the said bill may become a law.

Resolved, That a copy of the above resolution be sent to the Speaker of the Assembly.

Dr. Kennedy said that he thought the adoption of this resolution by this body would have the desired effect. Such a bill was needed very much in anticipation of the cholera.

Dr. B. P. Staats would like to have the bill read before the Society that the members might know what was proposed by it. He had heard that the bill had been "doctored" in the Senate. He, therefore, preferred having the matter referred to a committee.

Dr. J. T. Williams moved that this subject be referred to a committee of five to be appointed by the President, and that they report to-morrow. Adopted, and Drs. Willard Parker, Stephen Smith, Kennedy, Agnew and J. T. Williams were appointed such committee.

Dr. Lawrence McKay, of Rochester, read a paper entitled "The Gingeral Margin as a Diagnostic Sign."

On motion of Dr. Corliss, Dr. Willard Parker made a few appropriate remarks regarding the Health Bill, now before the Legislature.

Drs. Kennedy, B. P. Staats and J. T. Williams participated in the debate.

Dr. Squibbs, of Brooklyn, read a very interesting paper entitled "An Appeal for the Materia Medica," accompanied by the following:

He said: In order that there may be some organization in this Society that may, at least, serve to keep this subject in useful remembrance, the following resolutions are offered for consideration:

Resolved, That a committee of four, to be called "The Committee on Pharmacology," be appointed by the President, to hold office until the annual meeting of 1871.

Resolved, That it shall be the general duty of the members of this committee individually to accumulate knowledge upon medicinal agents and their application, and to report the result of their researches separately, through the chairman of the committee, annually to this society.

Resolved, That it be a special duty of this committee to take charge of the interests of this Society in the United States Pharmacopœia, and to collect, arrange, preserve and transmit all accessible information and knowledge that may be useful in the next decennial revision of that work in 1870, and to carry out the general provisions and requests of the National Convention of 1860, as they apply to this Society as a constituent of the National Convention of 1870.

Resolved, That this committee report to the Society, at its annual meeting in 1870, the names of three members of the committee, who, if confirmed by the action of the Society, shall serve as the representative delegates of the Medical Society of the State of New York in the National Convention of 1870, for revising the United States Pharmacopœia, to be held in Washington, on the first Wednesday of May, 1870; and that the delegation thus constituted be authorized and directed, on behalf of this Society, to conform to the rules adopted by the last National Convention, to facilitate the organization and effect the objects of the next one.

Resolved, That this committee shall apply to the Society to supply any vacancies that may occur in its members.

Dr. Wm. B. Brobins moved that the paper be received by the Society. Adopted.

Dr. Sayre moved the adoption of the resolutions accompanying the paper of Dr. Squibbs. Adopted.

The President appointed the following gentlemen the Pharmacological Committee: Dr. Ed. R. Squibbs, Howard Townsend, C. Green, Manlius Smith, Fowler.

Dr. Sayre moved that the paper and resolutions presented by Dr. Squibbs be presented to the different State Medical Societies, with the request that they take similar action. Adopted.

The Treasurer, Dr. Quackenbush, presented his annual report, which was accepted, and, on motion of Dr. Corliss, referred to the usual committee for examination.

Memorials were presented from the New York and Erie County Medical Societies.

On motion of Dr. Vanderpool, the memorials were endorsed by the Society and referred to a committee of three, to confer with the Legislature.

Dr. Gurdon Buck, of New York, read a paper illustrative of cases, one of "Destruction of the body of the lower jaw, with extensive disfigurement of the face, from a shell wound;" also, two other cases of deformity.

Dr. E. R. Peaslee, of New York, read a paper upon "Retroflexion of the unimpregnated Uterus."

The following papers were recommended by the Business Committee to be read by title and referred to the Committee of Publication:

"An adaptability of the Hospital and Cottage plan to the treatment and management of the insane poor, as illustrated by the colony of Fitz James, at Clermont in France, by Charles A. Lee, M. D."

Also, "An enquiry into the mode of propagation of cholera, with facts and reasons in favor of the theory of its transmission by choleraic stools, and in no other manner, with suggestions in regard to the proper preventive measures to be used in case the disease should again appear among us, by Charles A. Lee, M. D."

Also, "A case of Acute Enterites, treated by B. G. McCabe, M. D., Monticello, Sullivan county."

The Committee appointed on the Inaugural Address of the President reported as follows:

That the first matter claiming the attention of the committee is the one so feelingly alluded to by the President to the untimely

death of our late Secretary, Dr. Sylvester D. Willard. With but limited knowledge of Dr. Willard, except in his official capacity, it is obvious that your committee cannot speak appropriately of his life and character; they therefore suggest that the President designate some one of the many personal friends of our late lamented Secretary to prepare a suitable memorial of him and transmit it to the Committee of Publication in time to have it appear in the next volume of our transactions.

Our President notices very justly the great want of interest taken by a too large portion of the profession in medical matters, as manifested by neglecting to identify themselves with, and in many instances ignoring the County Societies, and expresses the hope that some measures may at once be inaugurated whereby there may be brought to the aid of the Society the intent, experience and influence of a large class of medical men not belonging to any medical society or connected with various organizations not having by law any relations with this Society. Your committee cannot see that any legal remedy can or should be brought to bear on the existing state of things; nor do they know that any was contemplated by our President. We can only appeal to the stirling good sense of those gentlemen, and urge upon them as a duty, the uniting themselves with the Societies entitled to representation in this body, and thereby building up, or greatly strengthening, the local organizations, and enabling them to send us more representative men who will co-operate with us in the work of elevating the position, and enlarging the power for good, for the entire medical profession.

As to the suggested change in the manner of electing permanent members according to a pro rata of the medical population, rather than by the mode now in operation, which is based on political divisions of territory, and which gives us two members annually from each Senatorial District, your committee think that the mode suggested would be eminently just, and would eventually result in our securing a larger number of active, intelligent, working members than we are likely to have by the operation of the present mode.

All statutory provisions for the protection of the profession having been removed, it seems altogether reasonable that the power

should be given to the local medical societies to determine the conditions of membership, and to discipline their members for any violation of that code of ethics under which we all act, with an appeal to the State Medical Society, as the "Tribunal to which all differences originating in the County Societies shall be referred for ultimate and final adjustment."

Your Committee express the hope that measures may be taken whereby there shall be secured the enactment of such laws as the existing state of things in our profession seem to demand.

All of which is respectfully submitted.

EDWARD L. BEADLE,
JAMES KENNEDY, } Committee.

Dr. Williams, from Committee on Health Bill, reported by resolution, as follows:

Resolved, That the State Medical Society now in session, does hereby earnestly urge the Assembly to pass, at the earliest day, a Health Bill which shall retain the general sanitary provisions and regulations contained in the bill which recently passed the Senate; as to the mode or manner of appointing the Commissioners to execute said law, the Society offers no suggestions, leaving this wholly to the wisdom of the Legislature.

Resolved, That a copy of the above resolution be sent to the Speaker of the Assembly at the earliest practicable moment. — Adopted.

Dr. Crandall offered the following, which was adopted:

Resolved, That in accordance with the suggestions of the Committee on the Inaugural Address, the President is hereby authorized to appoint one or more members of this Society, residing in Albany, to prepare a suitable memorial of the late Secretary, Sylvester D. Willard, and that the same be published in the forthcoming transactions.

Dr. J. H. Curry offered the following:

Whereas, This Society wishes to express farther its appreciation of the life and character of S. D. Willard, M. D., late Secretary of this Society, and to show in some measure their sympathy with his numerous friends not connected with the profession; therefore,

Resolved, That the members of this Society do request the biographer of the late Dr. Willard to issue five hundred extra copies of said biography, together with the steel plate of his likeness, and that the members of this Society will pay each the sum of $—— to defray the expenses of the same.

The Chair appointed Drs. Townsend, Hun and Bailey a committee to collect subscriptions for the above object.

Dr. Brinsmade, from the committee appointed to draft appropriate resolutions in reference to the decease of Dr. Blatchford, of Troy, reported as follows:

Resolved, That this Society has heard, with profound sorrow, the announcement of the death of our late distinguished brother member and former president, Dr. Thomas W. Blatchford, of Troy; that his eminent abilities, high professional attainments, and social virtues, had won for him the esteem and regard of the medical profession of the State, and secured the respect and confidence of the community in which he was best known; and that, in his decease, this Society is called upon to mourn the loss of one of its most honorable and useful members, and the city in which he lived, and labored, add died, one of its best men.

Resolved, That this Society extend an expression of its condolence to the widow and children of the deceased, and that a copy of these resolutions be sent to them by the Secretary of this Society.

Resolved, That Dr. Stephen Wickes, of Orange, N. J., be requested to write a biography of the late Dr. Thomas W. Blatchford, and present it for publication in the next volume of the Transactions of this Society.

Adopted.

Then, on motion, the Society adjourned to meet at eight o'clock, in the Assembly Chamber, to hear the annual address of the President.

Agreeable to adjournment, the Society met in the Assembly Chamber at eight in the evening. The meeting was called to order by Dr. Hutchison, Vice President, after which he introduced Dr. Dean, who delivered a very able and finished address.

When the Society adjourned to meet at their usual place of assembling at nine o'clock Thursday morning.

Dr. Hutchison moved that the committee appointed to draft suitable resolutions expressing the sense of the Society relative to the death of Dr. Mott, be authorized to prepare such resolutions as they may think proper, and send them to the Committee on Publication, to be published in the Transactions of this Society. Adopted.

Dr. Shipman, from the committee appointed to draft suitable resolutions on the death of Dr. Wm. Taylor, of Manlius, Onondaga county, reported the following:

Whereas, We have heard with profound regret the death of Dr. Wm. Taylor, of Manlius, Onondaga county, one of the permanent members of this Society and formerly its President, therefore

Resolved, That the loss of such a man is one that all classes of community most deeply deplore, as he was one who had spent a long life in the service of his profession, faithfully and conscientiously laying aside all selfish feelings to do his duties to the sick and suffering.

Resolved, That as a man, Dr. Taylor was a credit and an honor to the human race; in him was combined in harmonious proportions, all the virtues that adorn a man and stamps the Christian gentleman.

Resolved, That while we cherish his memory we will endeavor to imitate his virtues as the best means of keeping alive his enduring remembrance. Adopted.

Dr. Bissell offered the following, which was adopted:

Whereas, The threatened approach of epidemic cholera is creating alarm and fear among all classes of people throughout the State; and,

Whereas, In the opinion of this Society cholera may be mainly if not entirely prevented from becoming *epidemic* in any city, town or locality, by the adoption and rigid enforcement of proper hygenic measures; and,

Whereas, It is due from this Society to take such action to protect our people throughout the State as a duty to our profession, and the safety and welfare of the citizens demand; therefore,

Resolved, That this Society concur in the views taken and the recommendations made by the "Council of Hygiene and Public Health of the citizens of New York, to protect the people of that city against the introduction and spreading of Asiatic cholera; the causes which will produce epidemic cholera, and the hygienic measures which will prevent its deadly march in that city will produce like effects in every other part of the State.

Resolved, That the Council of Hygiene and Public Health of said city are entitled to the thanks of the medical profession and people of the State, for their full and able report on Epidemic Cholera, adopted Nov. 14th, 1865, and that a copy of the same should at once be placed in the hands of all Common Councils, town authorities, and Boards of Health within the State limits, for their direction and guidance in the case of preventive measures, before the cholera shall visit their localities.

Dr. A. N. Bell moved that the same acknowledgments be tendered to Drs. Sayre, Murphy and Swinburne, and to the Mayor of New York, for their efforts to exclude and prevent cholera, as published in a pamphlet for public distribution, under date of November, 1865, and that this pamphlet be distributed in the same manner as that of the report of the Citizens' Association. Adopted.

Dr. Wheeler, of Massachusetts, made some very interesting remarks expressive of his appreciation of the Society. He also illustrated a case of "Urinary Calculi."

Dr. Parker, from the Committee on Prize Essays, reported as follows:

To the Medical Society of the State of New York:

The Committee on the Merritt Cash Prize appointed by your honorable body being also the Committee on the Brinsmade Prize, beg leave most respectfully to report as follows; and first with relation to the

Merritt Cash Prize.—Your committee are pained to be compelled to announce that no competitative essays for the above prize have been received during the past year. Notwithstanding the fact that the subject selected has been one of such dominant importance in the medical history of our great civil war, and the opportunities for studying it, whether in the field and among large bodies of troops, or upon individuals in the multitude of hospitals scattered throughout the country, have made this subject familiar to every surgeon in the public service, the prize—now doubled in amount by accumulation of two years, still remains uncompeted for.

Considering the very extensive field of operations upon which our armies were employed, extending from Pennsylvania to Texas, and from the Atlantic ocean to the western tributaries of the Mississippi, thus embracing an area of over 400,000 square miles, and presenting every variety of climate, whether marine, mountain or inland, together with the modifying influence of soil, vegetation and water courses upon the development, progress and termination of diseases, your committee, in selecting the subject of chronic diarrhœa for this prize, believed that they had chosen a rich field for competition, and confidently hoped, therefore, to elicit from the medical profession a large number of essays, from among which to select a successful candidate. They had greatly desired that some contribution to the medical history of a disease, which was the special scourge of our armies, might, for the honor of this Society, appear among its printed Transactions; and for this end retained the subject a second year as a further invitation to competitors. In this hope your committee have been sadly disappointed, and they feel compelled, therefore, to withdraw the subject, unless your honorable body should otherwise order.

Brinsmade Prize.—For this prize but one essay has been presented, and inasmuch as this does not comply with the rules specially laid down by the founder of the prize, nor fill the scope of requirements exacted by him, your Committee do not feel themselves authorized to receive the essay, and cannot, consequently, express any opinion upon its merits.

Your Committee cannot close their report without paying a passing tribute to the memory of their lamented colleague, the late Dr. Thomas W. Blatchford, known to this Society and to the profession throughout the country, as one of its most distinguished members and ornaments, his long life and usefulness has left behind it a memory without soil and without tarnish. To a mind of massive proportions, he united the rare graces of a refined scholarship, and brought to the elucidation of a scientific problem a logical power which enabled him to grapple and master their elements as by intuition. The candor and inflexible honesty of his character compelled the admiration and won the esteem of all. He was a true man, and the well-rounded outlines of a symmetrical nature closing in a wealth of personal merit, which affected no ostentation of display. As one of the pillars of this Society, his loss will not soon be repaired, while to those who enjoyed the privilege of his friendship, his memory will be endeared through life. *Extinctus amabitur idem.* The report was accepted.

Dr. Vanderpool moved that the same Committee be continued, and that the subject on essays be referred back to that Committee to act according to their judgment. Carried.

Dr. Squibbs, from the Nominating Committee, presented the following, which was adopted unanimously:

The Committee on Nominations beg leave to recommend the following names for election to fill the offices and delegations of the ensuing year:

For President—Joseph C. Hutchins, M. D., of Brooklyn.
For Vice President—Julien T. Williams, M. D., of Dunkirk.
For Secretary—William H. Bailey, M. D., of Albany.
For Treasurer—J. V. P. Quackenbush, M. D., of Albany.

Delegates to the American Medical Association.—Drs. T. C. Brinsmade, D. P. Bissell, H. W. Dean, C. C. Wyckoff, A. L. Saunders

Samuel G. Wolcott, J. C. Hutchison, James L. Banks, Edward Hall, L. J. Tefft, James Ferguson, Seth Shove, H. H. Langworthy, C. Green, J. K. Chamberlayne, F. Jacobs, E. H. Parker, G. J. Fisher, H. A. Carrington, Harvey Jewett, S. Oakley Vanderpool, John R. Van Kleck, Wm. H. Bailey, Thomas Hun, C. M. Crandall.*

Correspondence.

CHOLERA.

To the Editor of the Buffalo Medical and Surgical Journal:

I enclose you the following communication, just received from Dr. Marsden, of Quebec, being a "*Plan of Quarantine for Cholera*," for that city, prepared by him and approved by a committee of the medical profession to whom the subject was referred. You will, I think, confer a great favor on the profession generally, as well as the municipal authorities of this city, by giving it a place in your pages. You will perceive that the whole plan is founded on the principle that the Asiatic cholera is a *portable*, *controllable* and *communicable* disease:

This is the same view which I took recently, as you are aware, in my letter to Dr. Sayre, Health Commissioner of New York, and published in the daily papers. In justice to myself, perhaps, I ought to state that I did not intend to claim the theory and views set forth in that communication *as original with myself*, although long entertained by me, in common with many others. I have studied the history of cholera very closely, since its first introduction into our country in 1832, when I had charge of one of the largest cholera hospitals in New York city, and I gradually came to the conclusion, that though not contagious, in the ordinary sense of the word, it was nevertheless *portable* in some way, and in all probability through the dejections of those affected with it, whether in the form of *cholerine* or an acute attack. In my edition of Copland's "Dictionary of Practical Medicine," published many

* We are obliged to greatly abridge the report of the Society for want of space in our pages.

years ago, I advocated, in common with the author, the doctrine of *contingent contagiousness* of the disease; had the word *infection* been substituted for that of *contagion*, it would have come nearer the truth, inasmuch as we can no longer doubt that cholera may not only be transmitted by *persons* but also by *effects*.

I think the profession, generally, in our country, as well as abroad, have been gradually adopting the same conclusions. The principal physicians of Germany, for example, have during the last ten years advocated the theory of the transmission of the disease by the choleraic dejections of persons affected with it, among whom may be named Professors Pettenkofer, Niemayer, Dielbruck and others. Notices of the same theory have appeared in several of the foreign medical journals during the last year, and also in the *Buffalo Medical and Surgical Journal* of December, 1865, in a very able article by Prof. Niemayer of Tubingen, translated from the German by Dr. T. A. McGraw, of Detroit. This paper probably contains the fullest and most satisfactory exposition of this doctrine yet given to the profession in our country; and had I been writing an article for a medical journal, I should have taken great pleasure in referring to this paper, and given my friend Dr. McGraw full credit for his very faithful and admirable translation of the same. It is also no more than justice to my respected colleague, Prof. Rochester, to state, that he has, for many years past entertained precisely the same views in regard to the mode of propagation of the disease, and has taught them in his annual courses of lectures in the Medical Department of the Buffalo University.

CHARLES A. LEE, M. D.

Dr. Marsden's Plan of Quarantine.

It may suffice, perhaps, to state that the plan of quarantine proposed by Dr. Marsden contemplates three separate and distinct sections or departments; each being isolated and separated from one another by a *cordon*, or portion of neutral ground, of not less than one hundred feet wide. One of three sections or departments to be appropriated to the use of the sick, and called the *hospital department*. The next, or central section, is to be devoted to the use of passengers not having had cholera, but from infected ves-

sels. The third, or healthy department, to be appropriated to the use of the healthy, who had been removed from the central department, ofter having performed quarantine there.

In the *first section or department*, there are to be three distinct and separate hospitals, besides a convenient shed or hospital; the one for confirmed cases of cholera, to be called the CHOLERA HOSPITAL. Another for cases of choleraic diarrhœa, or other premonitory symptoms of cholera, to be called the HOSPITAL FOR CHOLERINE. The third, for all other diseases, not cholera, or cholerine, but coming from on board infected vessels, or vessels having had cases of cholera on board, to be called the GENERAL HOSPITAL.

The central section or department, is to be the primary quarantine department, and appropriated to all persons who are not sick, but came from vessels having had cholera on board, and wherein every case on landing shall undergo inspection, washing, cleansing and purifying, both of persons and personal effects. There a quarantine of four days is to be performed, at the end of which period of time all such persons as continue in sound health, shall be removed to the FINAL QUARANTINE DEPARTMENT, and any that may fall sick or threatened with sickness during the four days of probation, shall, as soon as detected, be removed to the proper hospital, in the Hospital Department. There, also, the healthy inmates shall be removed daily to a new locality, thus occupying four different habitations during their sojourn.

The third, or healthy department, is to be the final department, and intended for all cases coming from the primary quarantine department, after having been cleansed, washed and disinfected, and after having undergone the *four days* quarantine; and here a further quarantine of *six days* is to be performed (excepting cases coming from the convalescent hospital or shed, hereinafter provided for) making in all *ten days* of quarantine, when all persons continuing healthy, shall be discharged from quarantine, and be removed from the station. If any premonitory symptoms or other cases of sickness occur in this department during the six days of quarantine, they are, as soon as discovered, to be removed to the proper hospital, in the Hospital Department.

No communication shall take place with the Hospital Department, except through the central or Primary Quarantine Depart-

ment, for which purpose a passage, unfrequented by the persons undergoing quarantine, shall be set apart and reserved.

The three sections or departments above described shall be designated and known as—

1.—The Hospital Department.

2.—The Primary Quarantine Department.

3.—The Final Quarantine Department.

To Pilots.—1. All vessels coming from infected ports, and having, or having had cholera cases on board, shall be brought to anchor abreast of the central or Primary Quarantine Department or Station.

2. All vessels coming from ports known to be infected by cholera, or not, and not having or having had any case or cases of cholera on board, shall be brought to anchor abreast of the healthy or Final Quarantine Department or Station, where, and when, they shall be boarded by the Medical Officer of that Department, and he shall have power either to discharge them from quarantine forthwith, or detain them, if he finds sufficient cause for so doing.

OF LANDING AND RE-EMBARKING.

a. The landing of passengers and their effects shall take place at the Primary Quarantine Department *only.*

b. The re-embarking of passengers and their effects shall take place from the Final Quarantine Department *only.*

1.—On the landing of passengers from on board ship at the Primary Quarantine Station, the sick shall be forthwith removed to the Hospital Department, and the healthy to the place assigned to them, in the Primary Quarantine Department.

2.—The sick shall be borne upon litters and placed within the neutral limits about midway between the Primary Quarantine and Hospital Departments, by the persons who bring them ashore, and who shall then retire to the Primary Quarantine Department, (unless they be seamen belonging to the vessel, in which case they shall return aboard ship;) whereupon persons from the Hospital Department shall enter the neutral ground, and remove them to the proper hospital.

3.—There shall be in the Hospital Department, at a reasonable distance from the Cholera Hospital, a shed or building for cholera

convalescents, where they shall remain at least for *four days* previous to being removed to the Primary Quarantine Department, and where a quarantine of *four more days* shall be performed after cleansing, washing and purifying, previous to removal to the Final Quarantine Department, where *two more days* of quarantine only, instead of six, shall be performed, making in all *ten clear days* after leaving the Cholera Hospital, when, if the patient continues healthy, he or she shall be discharged.

4.—Persons having completed their period of quarantine shall be removed at once from the Quarantine Station, by steamers chartered for the purpose, and shall proceed directly on their journey.

5.—Provisions, stores, clothing, bedding, and all other necessaries or supplies for the Hospital Department shall be conveyed within the hospital limits, under the same regulations and restrictions as persons.

6.—All physicians, orderlies, servants, nurses, attendants, etc., connected with the Cholera Quarantine Station, as also all persons performing quarantine, shall remain and be kept constantly in the department or section to which they have respectively been assigned, and none of them shall, under any pretext whatever, be permitted to have any communication or intercourse whatever, directly or indirectly, with persons from another department or section, excepting in due course of quarantine.

7.—Any employee, nurse or orderly belonging to the Quarantine Station, who may be found violating the above rule, shall be liable to suspension from office, with forfeiture of salary and emoluments, or dismissal from office, at the discretion of the Medical Officer in charge, or of the Superintendent, besides being obliged to undergo such quarantine as the nature of the contact or exposure may warrant.

8.—Any person violating the above rule by going from the Final Quarantine Department to the Primary Quarantine Department, or from either of these to the Hospital Department, shall, on detection, be detained in the department they have gone into, in violation of the law, and shall undergo quarantine there anew.

9.—All persons suffering the approach of persons from another department, except in due course of quarantine, will render themselves liable at the discretion of the medical officer, to be sent back

to the department to which the person so approaching them belonged, and shall undergo quarantine anew.

10.—The three Quarantine Sections or Departments shall be separated from each other, and bounded by a *cordon* or piece of neutral ground, of at least one hundred feet in width, and shall be surrounded by a strong fence of at least seven feet high.

11.—Between the Final Quarantine and Hospital Departments, at the extreme end of the Primary Quarantine Department, there shall be a cordon, or passage or portion of ground, of at least thirty feet wide, with a close fence of seven feet high, to be used exclusively as a passage from the Final to the Hospital Department, for the return of patients to the Hospital Department if necessary.

12.—Each of the sub-divisions in the Hospital Department shall be surrounded by an open fence of seven feet high.

13.—Each of the sub-divisions in the other departments, and especially in the Primary Quarantine Department, shall be surrounded by a close fence of seven feet high.

14.—Each of the before mentioned departments may and shall be sub-divided, in such manner as circumstances may require; and as near as practicable in accordance with the accompanying plan.

15.—The place of landing in the Primary Quarantine Department shall be as near the Hospital Department as convenient, and as far removed as possible from the place of departure or re-embarkation, in the Final Quarantine Department.

16.—There shall be telegraphic communication between each of the departments, with a telegraph operator attached to each.

Among the additional details of my plan, the following is most important:

A *perpetual* stream of water shall be made to flow through all the water-closets, cess-pools, drains, etc., which shall empty themselves at low water-mark; and such other disinfectants and deodorizers as science may suggest and necessity dictate, shall also be used.

W. MARSDEN, M. D.

We perceive from a recent New York paper that the above plan of quarantine of Dr. Marsden, was recently presented to the Board of Health of that city, with a recommendation that the Board request the General Government to adopt said plan, with some slight improvements, and make its enforcements compulsory at every port of entry on the entire coast.

Editorial Department.

Prevention and Communicability of Cholera.

Hygienists and Sanitarians appear to have multiplied or to have been supplied an appropriate field for labor. Laudable efforts are made to suggest what may be useful in preventing epidemic disease, and explain the causes and conditions which favor its appearance. The Citizens "Council of Hygiene and Public Health" of New York have published a report for the instruction of the public, giving a sketch of the progress and aspects of the approaching epidemic of cholera, drawing lessons from former epidemics and pointing out the natural fields and pestilential quarters in New York where cholera may be expected to prevail. They also show what may be the practical bearings of the teachings of the four former visitations of epidemic cholera in the United States, with what cholera will do, and what it will cost. Preventive measures are suggested, or what the people may do to prevent the ravages of an epidemic; particular duties are suggested with directions for cleansing and disinfection. This report has been published in pamphlet and widely distributed.

Buffalo Board of Health has not been inactive in this matter of sanitary regulations for the prevention of epidemic disease.—Health inspectors have been assigned to districts and all portions of the city are to be carefully inspected and nuisances abated. It would seem from a recent report of its action by Dr. Eastman, the Health Physician, that every reasonable effort is being made to place our city in the best condition known to sanitary science. Physicians held a meeting and a committee was appointed to act in concert with the Board of Health, if occasion should require, but it did not appear that anything of importance had been left this committee to suggest. The Board of Health is composed mostly of medical men, and the present intelligent Health Physician has been active in well directed efforts to increase the efficiency of the Board.

New York Council of Health have made a very full and able report, but so far as we are informed there has been as yet no *cleaning up.* New York is believed to be one of the dirtiest and

consequently the most unhealthy city in the world; many of its inhabitants living in as great neglect of every hygienic law, as the Arabs, Greeks and Maltese, who were swept off in Alexandria at the first appearance of the present epidemic, which has been so fearful in Egypt.

In Buffalo we have not made very much demonstration, but we are told that we are being washed and disinfected, and we hope the work may be given to faithful hands, to men who will not take for proof that the sewer and vault are clean and free from obstruction, because the house stands upon Delaware street or Fifth Avenue, for we are satisfied that neglect in this matter is common even with the "oldest inhabitants."

We are daily asked in great earnestness, do you think we shall have cholera next year? and of course make reply in proportion to the time we have to devote to the question. We *shall* have cholera next year; we have made up our minds to have it, and Buffalo people have, what they make up their minds to have. We have had cholera, sporadic cholera, every year since its last appearance—had a disease which next summer we shall call cholera, and leave off all prefixes and qualifications. We hope not to have a fatal epidemic—not to die with cholera, for we have not made up our minds to die—are not ready to die—and Buffalo people have a pride in not doing what they have not made up their minds to do—are not ready to do.

It has been claimed for the Health Department of New York that they have "*Anchored Cholera in the Bay.*" More likely in their ditches, sewers, cesspools and cellars, and that warm weather will let it loose. Be that as it may, anchored, or not anchored, cholera springs up and propagates itself in foul places—in the crowded and filthy quarters of great cities; and we may also say in this connection, that it occurs separate and alone, without connection with others, and with no known sources of contagion. It is liable to become epidemic, and we know of no certain means of protection, nor are we acquainted with its modes of communication. The interesting letter of Prof. Lee, in this Journal, explains itself, and rather goes upon the presumption that the modes of communication in choleaa are now known, have been determined, have been entertained by the profession, and almost settled as fixed

facts. It may have been suggested to some minds that the dejections in cholera were in some way capable of communicating the disease, in the same sense that the stools in typhoid fever have been believed to be capable of propagating that disease, but the profession in New York appear from Dr. Sayre's report to regard the suggestion that cholera is communicated by the dejections from the bowels and in no other way, as new, and though not settled, as yet worthy of consideration.

The suggestion is new, in the way it is presented in recent communications to this Journal, and we believe that nowhere can such a sentiment be found published in our literature of cholera. If it has been entertained, it has not been expressed in form to be understood, and the prevailing professional opinion concerning it has been, that it is due to atmospheric influences, localized perhaps, and rendered virulent by neglect of sanitary law.

This theory, which we believe to be essentially new, appears to us, as very likely to be also fallacious, certainly it is as yet unsustained by adequate proof. We have known cases of fatal cholera in men who have not left their own farms, or been visited by others having the disease. We have known many cases where the attendants suffered no ill effects; indeed it has been rare for hospital or private attendants upon cholera patients to suffer from the discharge of such duty. This was early observed, and soon led to a general belief in the non-contagion of cholera, a belief in contagion being unanimously entertained, both by the profession and public, at its first visitation. We hope never to have opportunity to test the truth of this suggestion, but if we do have such opportunity, may we go unbiased, and seek to know the truth only.

We publish a proposed plan for a quarantine station for cholera, by W. Marsden, M. D., etc., etc., of Quebec, which takes the ground that cholera is contagious, and proposes the most absolute isolation possible. The plan is an admirable one so far as securing that object is concerned, and if cholera is "*portable, communicable and controllable, and like plague to be transmitted and communicated both by persons and effects,*" as stated in the preface to this plan, there cannot be too much said in favor of its adoption by the general government as a uniform system for the whole Union.

It must be apparent, however, to every one that these proposi-

American Medical Association.

The Seventeenth Annual Session will be held in the city of Baltimore, on Tuesday, May 1, 1866.

The following Committees are expected to report:

On Prize Essays, Dr. Austin Flint, Sr., New York, Chairman.

On Quarantine, Dr. Wilson Jewell, Pa., Chairman.

On So-called Spotted Fever, Dr. Jas. J. Levick, Pa., Chairman.

On Ligature of the Subclavian Artery, Dr. William Parker, N. Y. Chairman.

On Tracheotomy in Membranous Croup, Dr. Alex. N. Dougherty, N. J., Chairman.

On Rank of Medical Corps in the Army, Dr. C. S. Tripler, U. S. A., Chairman.

On Rank of Medical Corps in the Navy, Dr. T. L. Smith, N. Y. Chairman.

On Medical Literature, Dr. C. A. Lee, N. Y., Chairman.

On Medical Education, Dr. Samuel D. Gross, Pa., Chairman.

On American Necrology, Dr. C. C. Cox, Md., Chairman,

On Patent Rights and Medical Men, Dr. David Prince, Ill., Chairman.

On Alcohol and its Relations to Man, Dr. Gerard E. Morgan, Md., Chairman.

On Insanity, Dr. Alfred Hitchcock, Mass., Chairman.

On Milk Sickness, Dr. Robert Thompson, Ohio, Chairman.

On the relation which the Doctrine of the Correlation and Conservation of Forces bears to the Physiological and Pathological Condition of the Human System, Dr. S. L. Loomis, D. C., Chairman.

On the Progress of Medical Science, Dr. Jerome Candee Smith, N. Y., Chairman.

On Diphtheria, Dr. H. D. Holton, Vt., Chairman.

On the Comparative Value of Life in City and Country, Dr. Edw. Jarvis, Mass., Chairman.

On Drainage and Sewerage of Cities in their Influence on Health, Dr. Wilson Jewell, Pa., Chairman.

What Effects has Civilization on the Duration of Human Life, Dr. Augustus A. Gould, Mass., Chairman.

On Disinfectants. Dr. E. M. Hunt, N. J., Chairman.

On Compulsory Vaccination, Dr. A. Nelson Bell, N. Y. Chairman.

On Strangulated Hernia, Dr. W. F. Peck, Iowa, Chairman.

On the Causes and Pathology of Pyæmia, Dr. J. J. Woodward, U.S.A., Chairman.

On the Use of Plaster of Paris in Surgery, Dr. Jas. L. Little, N. Y., Chairman.

On the Etiological and Pathological Relations of Epidemic Erysipelas, Spotted Fever, Diphtheria, and Scarlatina, Dr. N. S. Davis, Ill., Chairman.

On Meteorology, Medical Topography, and Epidemics:

Dr. J. C. Weston, Me.	Dr. D. Francis Condie, Pa.
" P. A. Stackpole, N. H.	" T. Antisell, D. C.
" C. L. Allen, Vt.	" O. S. Mahon, Md.
" A. C. Garratt, Mass.	" T. M. Logan, Cal.
" C. W. Parsons, R. I.	" R. C. Hamill, Ill.
" B. H. Catlin, Conn.	" J. W. H. Baker, Iowa.
" E. M. Chapman, N. Y.	" Abm. Sager, Mich.
" E. M. Hunt, N. J.	" J. W. Russell, Ohio.

WILLIAM B. ATKINSON,
Permanent Secretary, Philadelphia.

The Cholera Conference.

The French Government has proposed to the different nations of Europe to send delegates of medical men to a Convention to be held at Constantinople, to discuss in the fullest manner all the questions concerning the origin and cause of Asiatic Cholera, with a view to the establishment of such sanitary and restrictive measures as shall seem the most likely to limit its ravages now, and check them at the outset hereafter.

In this Convention the United States have been invited to take a part; and a few days since the President sent to Congress a message transmitting the correspondence of the Secretary of State with the French Minister, together with other papers relating to the proposed international Convention. The Secretary of State promises to give the subject his attentive consideration, and on the 21st of last November asked the opinion of the Surgeon-General

of the United States, for any suggestions he might be disposed to make in the premises. In reply, the Surgeon-General proposes that he be empowered to designate two of the Surgeons of the Medical Staff of the United States Army as members of such a commission. The Government has also received assurances of the cordial co-operation of the Turkish Government in the proposed conference. Lallah Effendi, the chief physician of the Imperial Court, and Dr. Bartholette, Counsel of Health, being nominated as representatives. A cordial welcome to the delegates is promised by the Court.

New Literary Journals.

We have recently had placed upon our table several new literary journals, all of which are very welcome visitors. Ticknor & Fields, the Boston publishers, who have done so much to gratify the literary taste of the country in publishing the "Atlantic Monthly," now send us the "Every Saturday," which, as its name indicates, is to be published weekly. It is a journal of choice reading, selected from the foreign current literature, and will no doubt be not only entertaining and instructive, but as proposed by the publishers will be an "interesting and valuable reflex of foreign periodical literature of the better class."

The numbers which we have received fully warrant the assurance that *Every Saturday* will be one of the most entertaining of peri odicals, and will be an attraction to all intelligent and cultivated readers.

American Educational Monthly, devoted to popular instruction and literature, has also been received, and its contents perused. We find it full of instructive and entertaining reading, richly meriting the reputation it has gained as a popular literary journal. It is published by Schermerhorn, Bancroft & Co., 130 Grand St., New York, for $1.50 per year, thus making it within reach of all. From the contents of the numbers we have received, we are greatly prejudiced in its favor. It seems to be the governing purpose to instruct, and at the same time entertain. We are much obliged to the publishers for the courtesy extended in sending this magazine.

Medical Record.—We are happy to acknowledge the receipt of the first number of "The Medical Record," published by the well known firm of Wm. Wood & Co., New York. It promises to be semi-monthly; and the first number speaks well for its future success.

Intra-Uterine Variola.—M. Legros presented to the Biological Society of Paris a variolous fœtus, with the following history; On May 18th, a woman in the Hotel Dieu was prematurely delivered of a fœtus aged apparently about five months, which was covered with pustules of small-pox. The mother had distinct marks of vaccination, and had never had small-pox. About six months previously, she had had connection with a man who was convalescent from variola. No exposure of the mother to contagion could be traced. This case, M. Legros observed, raised the question whether the father could have communicated the small-pox at the moment of fecundation, the disease remaining for five months in a state of latency. This theory he believes to be supported by the facts that, when a pregnant woman has small-pox, the fœtus is sometimes not attacked till some time after the recovery of the mother; and that, in a child of a syphilitic father, the disease in some cases does not show itself in the infant until several days or even weeks after birth.—*Gazette Med. de Paris, Aug.* 5, 1865.

Retention of Urine in the Fœtus.—M. Depaul related to the Biological Society a case in which a woman was delivered of an eight months' child presenting a great enlargement of the abdomen; there was a very little amniotic fluid. The child died soon after being born. The bladder was about $4\frac{1}{2}$ inches long and $2\frac{3}{4}$ wide, and was full of urine. The ureters were also irregularly enlarged, resembling at first sight the intestinal convolutions, and contained urine. The kidneys, especially the left, were also much distended; they were transformed into cysts with thin walls, filled also with urine. The cause of this distension was found to be an imperforate state of the urethra at the junction of the muscular and prostatic portions. More than a pint of urine was removed.—*Gaz. Med. de Paris, July* 15, 1865.

BUFFALO
Medical and Surgical Journal.

VOL. V. MARCH AND APRIL, 1866. Nos. 8 and 9.

ART. I—*Clinical Remarks upon Surgical Cases in the Buffalo General Hospital — Syphilitic Necrosis of the Skull — Trephining.* By J. F. Miner, M. D.

Gentlemen:—We are about to present before you a case of syphilitic necrosis of the cranial bones, and to attempt the removal of whatever may be found ulcerated or dead. The case will illustrate how fearful is the penalty of transgression, and show that there is no known method of preventing in some instances the terrible consequences of a disease which pervades every fluid, and every solid in the whole system, and which springs up after years of repose to complete a mission for evil which has no bounds or estimate. It is not classed as a malignant disease; medicine has greater influence for positive cure in syphilitic diseases than in almost any other; we almost boast of a specific, but we are often painfully reminded of a fact which we sometimes seem to forget, "that such boasting is vain." Mercury, properly administered, will, in most constitutions, control the secondary effects of syphilis. It is also sometimes useful in other stages of the disease, but it is not a specific, and will not wholly eradicate it from the system at any time. It is capable of good, it is also potent for evil, and as it generally has been, and still is, prescribed, quite as often works mischief as benefit. In the primary lesion, it may generally be omitted; it will not prevent constitutional infection, and possibly by uniting with the poison of syphilis, may produce a mercuro syphilitic disease more stubborn and incurable than

if only one poison were to be eradicated. The primary sore may be healed without mercury, by local treatment; the secondary disease is greatly controlled by it, not wholly eradicated; while the later manifestations which we call tertiary symptoms, are more influenced by iodine in its various combinations. The patient which is presented this morning, has passed through the hands of several physicians distinguished for heroic medication, and probably has not lacked for a supply of the "all healing panacea of syphilis;" however, we may not open this closed volume. Since his admission to the surgical ward of this hospital he has taken no medicine, and has not appeared to suffer from this neglect. He suffers from most profuse discharge of pus from the sinuses you observe upon the forehead, and a probe detects nenuded bone, that is, bone denuded of its periosteal covering; by firm pressure it appears that a portion of the os frontis is dead, and separating from the living bone beneath, that there is exfoliation of the outer table of bone. With the view of determining the condition more exactly, and of removing any dead bone which may be found, we make incisions down upon the skull and expose to view the dead, darkened, eburnated bone of the cranium. It is now seen to be dead, but it is not so much separated as appeared, and we will cut out a central portion with trephine, to ascertain the extent of the necrosis; when perhaps the fragments may be easily removed. It will now be seen that not only the outer table as we supposed is diseased, but the entire bone, including both tables. We have then trephined the skull, and you can now see that the membranes lining it are diseased and separated, and that large quantities of pus lay under the bone, relieved from pressing upon the brain by openings which had formed by partial separation of the dead from the living and healthy bone. By this operation we hope the sooner to get rid of the dead portion, and thus to lessen the drain upon the system caused by the profuse suppuration.

You may inquire if I think this disease is due to the effects of mercury administered for the cure of syphilis? and such question is worthy of careful consideration. Mercury, in some constitutions, improperly and extravagantly administered, is believed upon good grounds to have induced death of bone. Inflammation

of the periosteum terminating in suppuration or in separation from its attachments may cause death of bone, by arresting the circulation—cutting off the supply. Mercury has been supposed to be capable of producing such results, and it is probable that this belief is sustained by abundant proof. Syphilis is constantly observed to produce nodes—inflammation of the periosteum; which inflammatory action may be very active and acute, and cause arrest in the circulation of the bone to an extent inconsistent with life. Two causes then appear capable of producing this result, both operating in the same way, causing death of bone by arrest of circulation and consequent loss of nutrition, or by inducing inflammation of bone independently of any affection of external parts. Will syphilis produce these results in the bones and their periosteal coverings without the aid of mercury, or will such results follow in any case where no mercury has been administered? Does it require a combination of mercury with the poison of syphilis to produce these melancholy results?

The idea which is often advanced that mercury is necessary in the production of such results is wholly unsustained. That even its judicious employment in the treatment of syphilis may favor such disease has been been believed, but there can be no doubt that properly administered it is curative in its action, and often necessary in conjunction with iodide of potassium for the most permanent removal of the disease attainable.

Inflammation of the cranial bones, resulting in caries or necrosis is said to generally commence in the external table, but sometimes as in the case before you, it either commences in the internal table or extends from without inwards, in which event the products must either find exit through perforations or soon cause compression of the brain, or inflammation and disorganization of the cerebral substance. The frontal bone is much more frequently than other cranial bones attacked; all of the bones of the skeleton are exposed to such disease.

When caries or necrosis occurs, we should never fail to remove the diseased portion as soon as it can be separated from the sound parts. "Caries engenders caries," and when the tissue of bone has been destroyed, it can never be recovered by any means whatever; it becomes a foreign body, and by maintaining and

extending suppuration produces depressing and injurious effects which might even result in death. We hope in this case to be able to remove all dead and separated portions of bone and to relieve the patient of a drain which has reduced a naturally healthy and vigorous patient to a condition of alarming debility and depression.*

ART. II.—*Abstract of Proceedings of Buffalo Medical Association.*

TUESDAY EVENING, February 6, 1866.

Association met pursuant to adjournment and was called to order by the President, Dr. Ring. Present—Drs. Ring, Gay, Strong, Brown, Rochester, Boardman and Johnson.

DR. GAY exhibited a vesical calculus which he had removed by the usual operation. The stone was egg shaped, and weighed half an ounce. Prof. Hadley bisected it, and on chemical examination found its interior portion to consist of oxalate of lime, and its exterior rough portion to consist of the phosphates. It had been a source of great irritation for six years. The distance from the surface of the perineum to the neck of the bladder was much greater than usual. The index finger passing up through the wound could barely be made to reach the neck. The patient was sixty-eight years of age, and died on the sixth day after the operation.

DR. ROCHESTER reported the case of a young man to whom he was called, and found on inquiry that he had had all the symptoms of small pox. On examination found great dysnæ, also distinct and profuse purpural eruption. Next morning found the distinct small pox eruption. Directed him to take five drops sol. subsephate ferri every two hours. He is now at the ninth day of the eruption and doing well. This was not erythema nor was it roseola. Had seen one case of malignant small pox previous to the case just reported.

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* At this present time, two months after the operation, the suppuration has nearly ceased; all diseased bone is removed and the wound nearly healed; the dura mater, which at the time of operation was found greatly diseased, thickened and ulcerated, has been slower in recovering itself than the bony structure, and the present slight secretion of pus appears to be wholly furnished by that membrane. The results of the operation thus far have been in the highest degree satisfactory

Dr. Strong reported a case of rubeola with hæmatemesis preceding the eruption. The hæmorrhage was arrested with per sulph. ferri, and the case resulted favorably.

Miscellaneous business being in order,

Dr. Rochester read a communication from the Council of Hygiene and Public Health, of New York city, asking the profession of this city to take such action as may seem most judicious for the prevention of epidemic cholera if it shall prevail here at any time in the future.

After considerable discussion upon this subject and the means to be adopted for carrying forward preventive measures, Dr. Rochester offered the following, which was unanimously adopted:

Resolved, That every member of the regular profession, resident in Buffalo and vicinity, is earnestly invited to be present at the rooms of the Buffalo Medical Association on Tuesday, February 13, 1866, at 7 o'clock P. M. to take action respecting the sanitary measures proper to be instituted for the welfare and protection of our citizens during the ensuing summer.

Dr. Boardman made the following report of the soldiers received into and treated either medically or surgically at the Buffalo Hospital of the Sisters of Charity, compiled by M. Picket, remarking that he believed that the results of treatment in that institution had been very favorable:

Whole number received from June 30th, 1864 to August 31st, 1865—14 months. Whole number of surgical cases 186; whole number of medical cases 177; total 363; 74 had chronic diarrhœa; deaths from surgical cases 4; chronic diarrhœa 3; small pox 1; other medical diseases 3; total 11; whole number returned to duty 125; discharged or mustered out of service 123; transferred to other hospitals 51; reported deserted, but of whom many returned and were afterwards honorably mustered out 53; not accounted for 11. About twenty of these were sent to the front, and were a second time sent to this hospital on account of some medical or surgical disease contracted since their first discharge from this institution.

Dr. Strong remarked that he believed that the cases mentioned above were, with but few exceptions, mild—not severely sick—and that the good results reported were to be expected.

Dr. Boardman said that many of the cases were very severe, and regards the results as very flattering.

Dr. Gay concurs in Dr. Boardman's statements.

Report on prevailing diseases being called for variola and variolid were reported as prevailing.

Adjourned. Thos. M. Johnson, *Sec'y.*

ART. III—*Eclampsia—Poisoning by Opium.* By M. W. Townsend.

At 9 P. M., November 30th, 1865, I saw Mrs. M. S., aged 20, in her first pregnancy, at the sixth month. Dr. J. O. Loomis, a stranger to me, was in attendance. The patient was a very anæmic lady, who had had for the preceding few days œdema of the extremities, face and eyelids, a scanty renal secretion, and a distressing headache. I learned that at about 5 P. M. she had been convulsed, and that three or four convulsions occurred previous to my visit, for which she had been treated with saline enema. The urine, drawn by catheter, yielded under tests an extraordinary amount of albumen. No signs of uterine action.

Induction of labor and the exhibition of chloroform were advised on the grounds that the case was one of uræmic poisoning, dependent on passive congestion of the kidneys, which was the result of the pressure of a gravid uterus; that although there might be great hope for fœtus and mother, in a case of hysterical or epileptical convulsions, or in convulsions of reflex origin, there could be none for a fœtus of six months in uræmic poisoning, and little for the mother, unless promptly delivered; in which event, according to M. Blot, Herr Braun and others, we might expect the kidney to recover its elimination of urea—that chloroform meantime would control the convulsions and nullify the reflex disturbance attending delivery.

The attendant physician objected to the advice, and proposed to "leave her to the 'vis medicatrix naturæ' of Cullen!" Other advice was sought of Drs. Horace Clark and J. W. Craig, and under the advice of the former the membranes were punctured and a large amount of amniotic liquor was discharged. One hour after, patient being under the influence of chloroform, no evidence of uterine action. At midnight, Dr. Craig arriving, another examination was made, revealing evidence of labor-pains; os uteri patu-

lous, and readily admitting the index and easily yielding to a second finger; it was determined that an effort at delivery should be made. Fortunately the left foot of the fœtus was within the grasp of the two fingers used as forcep blades, and was readily brought down, followed by the right foot and pelvis. The patient was delivered without violence or undue effort, of both child and placenta. Chloroform was used occasionally during this procedure, and afterward, immediately upon indications of an impending paroxysm, and kept up only so far as to cause the premonitory symptoms of the paroxysm to disappear.

After delivery an enema was given and the bowels moved freely; a small quantity of stimulus was given and ordered to be repeated according to the discretion of the attending physician. Acetate of potassa grs. xx, in spts. nire. ʒj, once in four hours, and fluid food a teaspoonful once in two hours, completed the prescriptions.

During the day—December 1st—patient recovered consciousness, swallowed readily, talked of her sickness, and when not disturbed slept quietly. In the evening Dr. Craig used catheter and left patient sleeping. No appearance of coma.

December 2d, 7 A. M. Dr. Craig saw patient; remarked more restlessness, and left a small anodyne powder which was administered. At 10 A. M. I saw her, and there being considerable restlessness gave the attending physician three powders of one-sixth grain each of morphia, and advised him to administer one every four hours, as long as indications for use of morphia lasted, and no longer. At this visit the patient's appearance was favorable, as evidenced by the regular respiration, the good character of the circulation, and the voiding of eight or ten ounces of urine by catheter, which, when tested, yielded a much diminished quantity of albumen according to volume.

At 10 P. M. I found Mrs. S. comatose, would open the eyes when called, and when roused thoroughly answered a few questions and recognized her friends; pupils were contracted to the last possible degree; pulse small, not very much diminished in frequency; respirations infrequent, and when allowed to rest a moment would almost cease, but when shaken or spoken to in a loud tone more frequent for three or four moments; skin moist, cold and pale; catheter used and a full pint of urine voided. In

a few minutes voluntary respiration ceased. Resort was had to Marshal Hall's method, and by it respiration was sustained for five hours. At times she respired voluntarily, and a marked improvement was noticed a half hour after the alternate, prone and supine positions of the body were commenced.

The character of the coma, the fact that she could be roused to consciousness when I first saw her, the condition of her pupils, the fact that she was kept alive for five hours by artificial respiration, her condition at the exhibition of the last powder, show the case to be one of poisoning by morphia.

That the uræmic intoxication made her more susceptible to the power of opium might not be denied, but that it was not the cause of death is evidenced by the free secretion of urine, her recovery from uræmic coma more than twenty-four hours before, the absence of the convulsions, the sudden invasion of the coma, and the almost entire absence of the general indications of uræmia. To attribute to chloroform any share of the result would be gratuitous, as the article had not been used for about thirty hours.

It is proper in this connection to say, that an emetic course at 10 o'clock P. M. was entirely out of question, impossible; there was scarcely any excito-motor power when I first saw her at my last visit. The morphia had been given rather more than two hours before, in solution.

I wish to mention also, that during the past year I saw a case of poisoning by opium—a half ounce of laudanum having been given per anum, which was saved by Hall's method. Respiration had ceased, the pulse was barely perceptible, but a resort to artificial respiration commenced seven hours after the enema, and after all else had been tried resulted in recovery from the effects of the poison, although it was six hours before the patient could be trusted to voluntary breathing.

At the Students' Medical Society at Edinburgh much discussion has occurred of the results of acupressure. It is stated that Prof. Syme will try the method of temporary ligature, described by Mr. Churchill in a recent number of the *London Lancet*.

Whether Cholera is Contagious.

[Communicated for the Boston Medical and Surgical Journal.]

BY JACOB BIGELOW, M. D.

Within the present century, cholera, a disease indigenous in hot climates of the East, has, at various intervals, made its appearance in the temperate latitudes of Europe and America. It is now again exciting interest from its possible and perhaps probable approach to this country.

The experience of the last thirty or forty years has led a majority of medical men who have observed the disease to believe that, as a general law, it is not contagious. In this belief I must individually remain, until evidence more satisfactory than any which has yet appeared shall justify an opposite conviction.

The great epidemics of 1830 and 1847 had a remarkable coincidence in the path which they pursued, and in the order and dates of their arrival in different cities. They seem to have followed certain great routes of travel, and to have avoided others equally frequented. According to Leségue, they both visited consecutively, and in corresponding months, Tiflis, Astrachan, Moscow, Petersburg and Berlin. In 1831, cholera did not take the most frequented route from Berlin to Paris, but passed along the shores of the Baltic, crossed over to Sunderland, went down to London, and again crossed the channel and arrived in Paris about six months after its appearance at Berlin. A disease propagated by contagion of any kind would hardly have avoided the most frequented thoroughfares from Berlin to Paris, while it occupied half a year in going round by England.

The epidemic now or lately prevailing in Europe appears to date back at least nine months, at which time it existed among the caravans of pilgrims visiting or returning from the city of Mecca. In the middle of May last it was at Alexandria and Cairo, in June at Constantinople, Ancona and Marseilles, and in November at Paris, Havre and other European cities.

Thus it appears that cholera has now existed in Europe from three to eight months, among cities having constant commercial intercourse with seaports of the United States, during which time thousands of passengers and tens of thousands of bales and packages have been landed in our maritime cities. If cholera were as

contagious or portable as many believe it to be, it ought to have begun and perhaps finished its work in many of our seaports before this time.

Epidemics require two things for their introduction and extension. These are—first, predisposition in the inhabitants of the place visited; and, second, the arrival or presence of an exciting cause. This cause in some epidemics, such as small pox, is contagion. In others it is an occult influence, not yet discovered nor understood, nor known to be controlled, except in some instances, by hygienic agencies. No country, I believe, has succeeded in keeping out cholera by quarantines, and no country, as far as we know, can produce it artificially or retain it after the predisposition has disappeared. In its own time it moves on thoroughfares where men are traveling, and spreads in cities where they are stationary, for no better known reason than that mankind are its necessary food, and that where there are no people there can be no cholera. But why, of two frequented roads or cities, it selects one and avoids the other, investigators have not yet been able to satisfy us.

The credit of having introduced the present epidemic into Europe, is by a sort of popular acclamation assigned to the hosts of squalid devotees who perform an annual pilgrimage to Mecca. Yet we are told that "the cholera exists every year among the caravans of Musselmans arriving at the holy cities," so that their supposed mission of forwarding the cholera to Europe, in most years fails to be performed.

Cholera, like influenza and some other migatory diseases, has usually but not always advanced from east to west. Of the vehicle in which it travels, or the course it is next to take, we know about as much as mankind knew of the cause of lightning before the discovery of electricity. Its conveyance and propagation have been ascribed to air, to water, to material foci, to electricity, to ozone or to the want of it. Of late, in consequence of the vast development by the microscope of the existence everywhere of minute living organisms, it has become more common to ascribe the arrival of this and other like epidemics unseen "germs" which are called seeds or ova, cryptogamic or animalcular, according as the fancy of the theorist inclines him to adopt a vegetable or an animal nomenclature.

But in this, as in many other cases, it is easier to trace an analogy, or to assume a cause, than it is to prevent an effect. Altho' inquirers have been indefatigable in their attempts to enlighten the world on the means of ridding ourselves of the presence of the various offensive cotenants of our globe, yet no crusade has yet succeeded in banishing from our fields and houses the unwelcome swarms of mosquitoes, worms, grubs and flies. which molest us with their animal presence; nor in suppressing the blight of grain, to potato rot, or the peach-tree disease. Happily some, if not most of these have their periods of abatement or disappearance, and this rather through the order of Providence than the agency of man. Cholera seems to abide in the same category. We know little of its exciting cause, and not much of its prevention, except that by following in our personal habits the dictates of reason and experience, we diminish both the frequency and danger of its occurrence.

Whatever may be the cause or vehicle of cholera, credulous and excitable persons are impatient of suspense, and are prone to cut a knot which they fail to untie. When an epidemic disease first appears, some coincidence is always brought to light which is supposed capable of accounting for it. The arrival of a ship, the opening of a trunk or the washing of a garment, are among the most frequently accepted causes. But as these events have happened a thousand times before, and apparently under like circumstances, without any known results, it has been thought necessary by some of our later writers to narrow the compass of actual exposure down to the reception of the morbid excretions of one individual into the digestive canal of another. The first impression made by this announcement must, if true, be one of relief, the danger not seeming likely to happen very often. But to the possibility of such danger we can never oppose an absolute negative, so long as we persist in eating smelts and flounders caught about the mouths of our drains, or even turnips, salads and strawberries raised at Brighton. The risk, however, is so small, that most persons will prefer to take it, rather than to deprive themselves of food or luxuries.

Of the many sensation tales printed and re-printed about cholera, and the supposed instances of remarkable communication or arrest-

ation, it is sufficient to say that they are frequently interesting, being fully as dramatic as they are probable.

In the same regard we cannot help noticing that credulity, and perhaps private cupidity, have caused much stress to be laid on the supposed preventive efficacy of what are called "disinfectants," a mysterious word which implies a thing assumed but not proved to exist. We have deodorizers, such as chlorine, charcoal, etc., which by their combinations render certain effluvia imperceptible to our senses. But that these are not *disinfectants*, there is most abundant evidence. The narritive, then, of the physician at Malta, who covered certain surfaces in vessels with oil, and had them "disinfected by chlorine gas," after which "no new cases occurred," is to be classed with other like results, with which the medical press always abounds at the close of epidemics.

In clear and well-regulated cities of temperate climates, cholera is far from being the most formidable of epidemics. A greater part of its victims are the miserably poor, the worn out, the ill provided, and the intemperate, in whom this disease only anticipates the date, but does not greatly increase the annual or biennial number of deaths. Its mortality in our northern Atlantic cities rarely amounts to one per cent. of the population in a given place or year, so that a man may reside through an epidemic in one of these cities with less risk than he can take a pleasure voyage to Europe. After having witnessed many cases of cholera in this and other cities, I am farther satisfied that it affords one of the easiest modes of exit from the world.

People who would avoid or prevent cholera should cultivate equanimity, regularity of life and habits, cleanliness, salubrious exercise, temperance, and avoidance of all excesses. When they have done their duty in providing for the care of the sick, allaying public panics, and abating public nuisances, they may safely dismiss their apprehensions. Little good and some harm is always done by the indiscreet agitation of a subject which is to a great extent beyond our control. A single or sporadic case of cholera occurring in a village of a thousand inhabitants may attract little notice, and perhaps pass without record; but a hundred cases in a city of a hundred thousand inhabitants make an aggregate which generally causes some panic, though the proportion is exactly the

same, and the panic equally unnecessary. It is possible that the supposed immunity of country districts in comparison with cities may be accounted for by the fact, that in the sparse population of country towns cases are less liable to be detected and published.

I may be excused for repeating the following remark from among some "Aphorisms" published by me about thirty years ago, when the disease was new and little known among us. "Should the cholera continue to prevail for three years throughout this continent, it would cease to interrupt either business or pleasure. Mankind cannot always stand aghast, and the wheels of society at length would be no more impeded by its presence than they now are by the existence of consumption, of old age or of drunkenness."

Repeated Evacuation of the Aqueous Humour in Diseases of the Eye.

BY CASIMIR SPERINO.

He says: I use myself a small two-edged knife, very slightly curved on the flat, and having a slight ridge on each side, so as to render its faces convex from edge to edge, and to facilitate penetration. The width of the blade is about three millimetres. This knife is carried into the anterior chamber, with the concave face of the blade to the front, at any selected point of the circumference of the cornea, or even encroaching a little on the margin of the sclerotic, where it overlaps the cornea. The blade being withdrawn, the discharge of the aqueous humor is effected by means of a blunt probe, of metal or whalebone, which is carried more or less deeply into the anterior chamber, and then pressed lightly backwards.

The place of election for the puncture is nearly always the periphery of the cornea, more especially when it is intended to repeat the evacuations by the same opening. In ladies, however, I have made the opening in the sclerotic border, so as to leave no trace of a cicatrix. The point of the periphery is a matter of indifference, unless the chamber contain morbid products, blood, or pus, which may escape more readily at one part than at another. The aqueous humor escapes with equal readiness from all.

When the puncture is made through the sclerotic margin, it is usual to witness the escape of a few drops of blood, proceeding either from Shlemm's canal, or from the vessels entering it, and more abundant when the radiating peri-corneal vascular circle is injected, or when there is congestion of the anterior portion of the choroid. The conjunctiva itself may also furnish a little blood; and the bleeding from both these sources may recur, for one or two days, at each introduction of the probe. Such bleeding has never been attended by any mischance, and has often appeared to render the improvement more rapid.

The sole objection to sclerotic puncture rests upon the tendency of the opening to be obscured by a slight swelling of the surrounding conjunctiva; so that successive introductions of the probe are rendered difficult, and, if the eye be very sensitive, painful. It is important that the opening should not be too small, that it should be in a place easy of discovery, and that this place should be accurately remembered by the operator. The puncture, however, is in no way dangerous, and may be repeated as often as may be necessary. In my own practice, the place chosen is on the temporal side, and in the horizontal meridian of the cornea, either at the corneo-scleral junction, or about one millimetre farther back. The course of the knife is in a line parallel to the plane of the iris, which is thus never in danger of being wounded. By selecting always the same point of puncture, it is found easily and almost instinctively, for the purpose of successive evacuations by the probe.

If the opening made be too large, it will sometimes occasion a prolapse of the iris after the escape of the aqueous humor. This accident must be treated in the ordinary way. I have sometimes profited by it to excise a piece of the iris, or to displace the pupil. Otherwise, gentle friction upon the closed lid, the pressure of a Daviel's spoon upon the prolapse, or the exposure of the eye to light, will usually effect reduction.

The only serious mischance which, in unskilful hands, can result from the puncture, is injury to the crystalline lens. By ordinary care such an accident may be rendered impossible. The knife should be held parallel to the plane of the iris, steadily introduced, and rapidly withdrawn in the same direction. The aqueous humour

does not escape during this step of the operation, and neither the lens nor the iris can be wounded. Wounds of the iris, however, although well to be avoided, are seldom productive of any inconvenience.

As the anterior chamber is emptied, the iris gradually advances until it comes into complete contact with the cornea, and the tension of the globe diminishes in a degree proportionate to the quantity of the aqueous humour. If the state of the anterior chamber be normal, the pupil dilates a little, yielding to the forward pressure of the lens. After a few minutes the chamber is refilled as before; although the rapidity with which the aqueous humor is restored varies much in the various diseases of the eye. In order to empty the chamber again, the wound is re-opened by a little probe, the simplest introduction of which is often sufficient. Sometimes it is necessary to use a little backward pressure, since the iris, closely applied to the cornea at the puncture, may impede the escape of the fluid. Such pressure is the only part of the procedure that may be a little painful, by its influence upon the ciliary circle and plexus of nerves. The sensitiveness of these parts is a reason for not losing sight of the exact place of puncture, and for not making painful exploration with the probe for its discovery. An increase of sensitiveness in the eye is never to be considered a contra-indication for paracentesis; since such sensitiveness and the accompanying tension and pain, are nearly always removed by successive evacuations.

The forward pressure of the iris and lens is the immediate cause of the escape of the aqueoue humor. When there is posterior synechia, this pressure is not exercised, and the fluid no longer escapes spontaneously. It is then necessary to introduce the probe repeatedly, and to introduce a stronger pressure, in order to cause the escape of the humour. During the first days of the treatment, it is often impossible to empty the anterior chamber completely.

When the chamber contains concrete pus, or lymph, it is sometimes necessary to carry the probe across the morbid product, in order to cause the escape of the humour; and, under similar circumstances, it may be needful to introduce the probe several times, especially if care has not been taken to make an opening sufficiently large. In such cases the blunt whalebone probe should be preferred, since it is less liable to bruise, or injure the iris. * * *

The evacuations of the aqueous humour by the same apperature may be effected by two methods—either repeatedly in a single *seance*, followed by an interval of some days, or singly, at shorter intervals, and for a considerable time.

By the first method the anterior chamber is emptied, at the same *seance* and by the same opening, twice, thrice, four or even more times, at intervals of some minutes, according to the quantity of the fluid and the rapidity of its reproduction. By the second method, the probe is introduced and the chamber emptied in the morning, and again in the evening, or several times a day, and this for many days, or even weeks. Sometimes it may be necessary to combine these methods, and sometimes it will suffice to empty the chamber once every day.

Commonly, after thirty or forty hours, the corneal opening is found closed, and it is necessary to use a little pressure with the probe, in order to break down the adhesions. Excepting for the trifling pain, the wound may be re-opened after an interval of eight or ten days, without the least inconvenience.—*Ophthalmic Review, London.*

AN INTRODUCTION TO THE STUDY OF THE OPTICAL DEFECTS OF THE EYE AND THEIR TREATMENT BY THE SCIENTIFIC USE OF SPECTACLES.

(Continued from No. 7, page 270.)

BY A. M. ROSEBRUGH, M. D., TORONTO, C. W.

CHAPTER III—MYOPIA.

Concave Lenses.—Before proceeding to the consideration of myopia, it will be well for us to glance at some of the properties of concave lenses; and in order to simplify the subject, we will confine

ourselves to equi-concave lenses. An equi-concave lens is bounded by two surfaces, which are portions of the concave side of two circles which have equal radii.

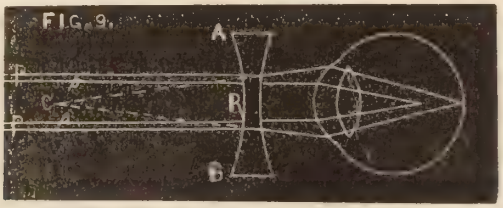

Fig. 9. A, B, one of the concave surfaces of the lens. C is the centre of curvature, and C, R the radius of curvature. When parallel rays, P, P, strike one surface of the lens, they have a divergence upon leaving the second surface of the lens, as if they proceeded from the centre of curvature, C, which, in an equi-concave lens, is also the principal focus of the lens. C, R, is the focal length of the lens. In a convex lens, the focus is measured *behind* the lens; in a concave lens, it is measured *in front* of it. If we call the focus of the convex lens positive, we must call the focus of the concave lens negative. When parallel rays of light fall upon a convex lens, they are converged to a focus. When they fall upon a concave lens, they are made to diverge. A convex lens enlarges, and a concave diminishes the apparent size of objects. The focal length of a convex lens is measured behind; and that of a concave lens, in front of the lens. They are, therefore, entirely opposite in all their properties; and, for this reason, a convex lens is called a positive lens; and a concave one, a negative lens. Or, shorter still, they are indicated by the plus (+) and minus (−), algebraic symbols; thus, + 5, and − 5; or, + $\frac{1}{5}$, and − $\frac{1}{5}$. To ascertain the focal length of a concave lens, we ascertain what convex lens it will neutralize.

1. In a myopic eye, parallel rays, as well as those that have a certain degree of divergence, are focussed *in front* of the retina; and, the inverted image of distant objects being formed in the same position, the picture upon the retina will be ill-defined, and vision for distant object consequently indistinct.

Patients with myopia complain that, although their vision for near objects is perfect, they cannot see objects at a distance with any dis-

tinctness. They can read the smallest type, when brought near the eyes, even better than persons with normal vision, but they are not able to recognize their friends at a distance of fifteen or twenty feet.

In order to enable such persons to see distinctly at a distance, it is necessary for them to wear concave spectacles of such a strength, that the parallel rays from distant objects may have such a degree of divergence, that, falling upon the myopic eye, they may form a focus upon the retina. Theoretically, we should prescribe concave glasses of such a strength that their focus will correspond with the patient's "far" point. Thus, if the "far" point be at 12 inches, we should prescribe — 12, as a twelve inch concave lens, placed before such an eye, will give parallel rays from distant objects the same degree of divergence as if they proceeded from the "far" point of the eye; namely, at 12 inches from the eye. Thus, in Fig. 9, P. P. represent parallel rays falling upon the concave lens, A. B.; they are made to diverge, as if coming from the focus, C., and falling upon the eye divergingly, they are focussed upon the retina at F. Practically, however, we would find that — 12 would be rather too strong, and that — 15, or — 16 would probably answer better. As a rule, the weakest glasses should be worn that will enable the patient to see distant objects with distinctness.

In testing the degree of myopia, we use a series of test types that are so constructed that No. I (smallest) can be distinctly seen and read by a person having normal vision, at a distance of 1 foot; No. II, at 2 feet; No. V, at 5 feet; No. XX, at 20 feet; and so on. A specimen of these types will be annexed to this paper. The types are also used in testing the acuteness of vision in Presbyopia, Hypermetropia, Amblyopia, &c.

2. In determining the degree of myopia in any case, we ascertain the greatest distance at which No. I test types can be read distinctly; if at 10 inches, the "far" point will be at 10 inches, and the myopia would be called $\frac{1}{10}$; if at 6 inches, the myopia would be called $\frac{1}{6}$. From this we can, as stated above, get a proximate knowledge of the strength of the concave lens necessary to relieve the myopia.

3. A myopic eye, when in a state of rest, is adjusted for diverging rays. To enable such an eye to see distant objects, that is, to bring parallel rays to a focus on the retina, it is necessary to give these parallel rays a preliminary degree of divergence by the interposition of the proper concave lens.

4. Myopia can be distinguished from every other defect of vision, by the fact that concave glasses improve vision for distant objects. If we have no concave glasses convenient, we can diagnose it from Amphyopia, (insensibility of the retina) by the following ready method:—A person with normal vision can read distinctly, No. I test type at 12 inches, and even a little farther. We will suppose that a patient's vision is so impaired, that he can only read No. II at 6 inches; if he is *not* also myopic, he can also read No. IV at 12 inches, or No. LX at 180 inches—that is at 15 feet. However impaired then a person's vision may be, unless he be also myopic, he can see as well proportionately, at one distance as at another. On the contrary, a person with myopia, say $\frac{1}{6}$, can see the smallest type (much smaller than No. I,) at 6 inches, but he cannot see No. II, or even No. V, at 12 inches.

This disease is often hereditary. Over exertion of the eyes upon near objects at the age of puberty, (about 14 or 15) is a very frequent cause of myopia.

Short-sighted persons often inquire if we would advise the use of spectacles. There can be no objection to wearing glasses that will enable them to see distant objects; for their eyes are thus changed to normal ones, but as most persons use their eyes much more frequently upon near than upon distant objects; the glasses should be no stronger than necessary. Some contend, however, that short-sighted persons should dispense with glasses for reading, writing, &c. Prof. Donders, however, recommends their use for this purpose, for the following reasons:—

1st. "Because strong convergence of the optic axes is necessarily paired with tension of the accommodation. The latter is an associated action, not arising from the mechanism of the convergence, but existing within the eye itself, and may consequently easily lead to an increase of the myopia. Besides this, the pressure of the muscles upon the eye ball appears to be greater when the optic axes are convergent, than when they are parallel, and this increase of pressure cannot but tend to give rise to the development of posterior staphyloma.

2d. "On account of the habit which short-sighted persons have of bending their head forwards during reading or writing. This must cause an increased flow of blood to the eye, and an increased tension within the eye itself. Owing to this development of sclerotico—choroiditis posterior, effusions of blood and detachment of the retina

which are so apt to occur in short-sighted persons, are undoubtedly greatly promoted. For this reason, we should always tell these patients to read with their head well thrown back, and to write at a sloping desk. But it may, on the other hand, be urged that it is just in looking at near objects that myopic persons have an advantage, for they can see them remarkably distinctly. And the great danger is, that after reading for a short time with spectacles, the patient, on getting somewhat fatigued will, instead of laying the book aside, approach it nearer to the eye, in order to gain greater retinal images, and thus strain and tax his power of accommodation too much. If we, for instance, give a patient whose far point lies at 8 inches, a pair of spectacles which enable him to read at 12 inches, he will, if not very careful, after a short time almost insensibly bring the book nearer to his eyes, and thus have to make use of a greater amount of accommodation. If he does this frequently, he will soon increase his myopia. The greater the range of accommodation the less harm will spectacles do, and *vice versâ*. Spectacles may also be used for near objects in those cases of myopia in which asthenopia (depending upon insufficiency of the internal recti muscles) shows itself as soon as the patient has read or worked at near objects for a short time. Whilst these forms of myopia may be furnished with spectacles for near objects, it is very dangerous to permit their use in patients whose range of accommodation is very limited, and who, moreover, suffer perhaps from such an amount of amblyopia (generally depending upon sclerotico—choroiditis posterior) that they cannot read No. 4 or 5 Jäger even with the most accurately chosen glasses. Such patients will bring the object very close to the eye, in order to obtain large retinal images, the accommodation will be greatly strained, the intra-ocular tension be increased, and great mischief will be sure to ensue. If there is much amblyopia, spectacles should not be permitted at all for near objects."*

In cases where the myopia is extreme, there usually co-exists posterior staphyloma of the selerotic. Von Græfe says it is present in all cases of myopia where the "far" point is less than five inches; the myopia being less than $\frac{1}{5}$. Out of sixty cases of myopia examined by J. Z. Laurence, forty-four had posterior staphyloma.

The presence of this disease can be easily diagnosed with the ophthalmoscope. (See Hulke or Zander on the ophthalmoscope.)

*Mr. J. Z. Laurence, of London, recommends that deeply concave lenses be *tinted*, in order to obviate their "dazzling" effect.—(Med. Times and Gazette, Oct. 22nd, 1864.)

Posterior staphyloma is a serious complication in myopia, as the sensibility of the retina becomes more or less impaired in the position of the bulging of the selerotic, and in some cases the retina becomes detached from the choroid. It is the existence of this disease that prevents improvement in cases of myopia, as the eye becomes flattened with advancing age.

Donders considers that in myopia, the antero-posterior diameter is alone at fault; that is, it is too much elongated, and that the cornea and crystaline lens have usually a normal curvature.

The characteristics of a myopic eye, are*

1st. Parallel rays are focussed in front of the retina.

2nd. The "far" point is at a definite distance and positive.

3rd. When the eye is in a state of rest it is adapted for divergent rays.

4th. Concave glasses improve vision.

Chapter IV.—Hypermetropia.

You will remember that when a normal eye is in a state of rest, and directed to a distant object, parallel rays are brought to a focus upon the retina, and that when a myopic eye is in a state of rest, parallel rays are brought to a focus in front of the retina. When, however, a hyperemtropic eye is in a state of rest, parallel rays would (if continued) form a focus behind the retina. Hypermetropia is, therefore, the reverse of myopia. In myopia, the refractive power of the eye is excessive, and in hypermetropia it is not strong enough. When the accommodation of a myopic eye is paralysed, it has the power of focussing none but diverging rays upon the retina, but a hypermetropic eye under the same circumstances can focus only converging rays upon the retina. The "far" point of a myopic eye is at a definite distance and positive, but the "far" point of a hypermetropic eye is at a definite distance and negative. Concave glasses improve the vision for a myopic eye, and convex for a hypermotropic one.

This is an affection which has received very little attention until within the last ten years. It was indeed noticed by Dr. McKenzie of Glasgow, in 1841, but it was not until about five years ago that

* From Donders' system of classification.

Prof. Donders, of Utrecht, from his elaborate researches on this subject, first pointed out how common this affection is, and how frequently it is the sole cause of that peculiar weakness of sight (formerly so little understood) called asthenopia.

Donders believes that this condition of the eye depends more upon a shortening of the antero-posterior diameter of the eye, than upon a too low degree of its refractive power; that the cornea and crystaline lens have a normal degree of curvature, and that parallel rays would form a focus at the normal distance behind the lens, were the retina far enough back to receive it.

A very good illustration of a hypermetropie eye is one in which the crystaline lens has been removed in the operation for cataract. To enable such an eye to see distinctly, even distant objects, it is necessary to place in front of it a strong convex lens of about four inches focus, called a cataract glass. The eye having too low a refractive power to converge rays to a focus, on the retina, it is necessary to give rays falling upon the eye, a preliminary degree of convergence; the eye having sufficient power to complete their refraction to a point upon the retina. We do the same thing in relieving cases of hypermetrophia.

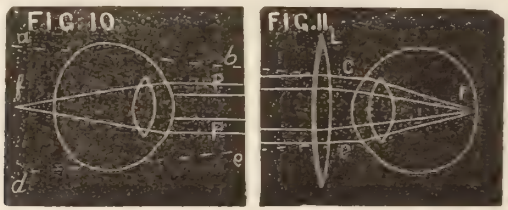

Fig. 10 represents a hypermetropie eye in a state of rest. P P are parallel rays which are focussed behind the retina at f. L, Fig. 11, is a convex lens which changes the parallel rays to convergent ones, at c, c, as if they came from the direction *a b* and *d e*, which again are refracted by the eye, and brought to a focus upon the retina at F.

When a hypermetropie eye is in a state of rest, and directed to distant objects, it is adjusted for convergent rays; images upon the retina will consequently be ill defined, and vision will be indistinct. To remedy this, it is necessary for the eye to increase its refractive power by increasing the antero-posterio diameter of the crystaline lens, so as to bring parallel rays to a focus on the retina.

When a person with hypermetropia, attempts to read or write, or accommodate his eyes to short distances, it is necessary for him to tax his accommodation to its utmost extent, in order to bring the diverging rays to a focus on the retina. This excessive effort at accommodating the eye for short distances, can not be kept up for more than a few minutes, when the ciliary muscle begins to relax,—the "near" point commences to receed, and (if he is reading) the letters become indistinct. The eye also feels fatigued, and other symptoms arise which will be referred to when speaking of Asthenopia.

Diagnosis.—When we suspect a patient has hypermetropia, we test his eyes as follows:—We place a series of test-types, No. xv., xx., xxx., &c., at a distance of about 20 feet. If he can read No. xv. or xx. at this distance, his acuteness of vision is normal. We then try his vision with weak convex glasses, say No. 50, and if he can read the same type, at the same distance, we try successively No. 40, 36, 30, 24, &c., until we reach the glasses that render the test type indistinct at that distance. Some persons may possibly be able to relax their accommodation so as to see as well at a distance, with convex 50 lenses, as without them; and not be hypermetropic; it would, however, be very strong presumptive evidence of its presence; and if, in addition, the patient complain of the symptoms of Asthenopia, we would be generally safe in pronouncing it a case of hypermetropia. The shorter the focus of the lens he can use, the stronger is the presumptive evidence of the disease.

Again, if another patient be tested with the same type, at the same distance, and we find that he can not read a smaller type than No. xl. at 20 feet without spectacles, and that he can read No. xv. or xx. with convex glasses, say + 10 or + 12, his would be called a case of hypermetropia *absolute.*

In order, however, to test accurately the degree of hypermetropia in any case, it is necessary to neutralize one element in the refractive power of the eye; namely, the power of accommodation. In most cases of hypermetropia, particularly in young subjects, the accommodation of the eye is so constantly exercised, even when directed to distant objects, that it is quite impossible for them, by any effort of their own, to completely relax that accommodation. I related in a former chapter, the case of a patient who had lost the power of accommodating his eye to different distances. As the refraction of his eye was normal, parallel rays were brought to a focus upon the retina, and vision for distant objects remained perfect.

Had his eye been hypermetropic, parallel rays would not have been sufficiently converged by the refractive power of the eye, to form a focus upon the retina; vision would, consequently, have been indistinct. By placing, however, the proper convex lens in front of such an eye, the requisite preliminary convergence would be given to the rays, to enable the eye, with its low refractive power, to focus these rays upon the retina, and thus render vision distinct.

The lens used in such a case would indicate the degree of hypermetropia. If the lens were a + 15 inch, the hypermetropia would equal $\frac{1}{15}$ if a + 10, the hypermetropia would be $\frac{1}{10}$, and so forth.

We have, however, the means of temporarily producing this condition of the eye by artificial means. By applying a four grain solution of atropine to the eye, within two hours the action of the ciliary muscle will be completely paralysed. A solution of one grain of atropine to an ounce of pure water (also a solution of the extract of belladonna) will dilate the pupil widely, and in some cases, will render the eye slightly presbyopic, but it will not paralyse the accommodation.

If we test, in this manner, the case of suspected hypermetropia mentioned above, and find that after his accommodation is paralysed, he is not able to read No. xxx. even with + 50, and that the only glass with which he can read No. xv. and No. xx. at 20 feet is + 20; his hypermetropia is therefore $\frac{1}{20}$. But as he could see as well with + 50 as without them, before his accommodation was paralysed; he had a manifest hypermetropia of $\frac{1}{50}$. The difference between his total hypermetropia and his manifest hypermetropia will give the amount of the *latent* hypermetropia, which he overcame with the exercise of his accommodation, namely, $\frac{1}{33\frac{1}{3}}$, thus $\frac{1}{20} - \frac{1}{50} = \frac{1}{33\frac{1}{3}}$.*

Asthenopia, according to Donders, depends almost invariably on hypermetropia. He describes it as follows: "The power of vision is usually acute,—and nevertheless, in reading, writing, and other close work, especially by artificial light, or in a gloomy place, the objects after a short time, become indistinct and confused, and a feeling of fatigue and tension comes on in, and especially above the eyes, necessitating a suspension of work. The person affected now often involuntarily closes his eyes, and rubs his hand over the forehead and

* Hypermetropia can easily be diagnosed with the ophthalmoscope.

eyelids. After some moments rest, he once more sees distinctly, but the same phenomena are again developed more rapidly than before."

According to my own experience with these cases, the above description corresponds very closely with the description that most patients give of their symptoms. Some give more prominence to the neuralgic pains which they experience in and around the eye, and in some cases extending to the back of the head. I was consulted, about a year ago, by a lady from the town of Simcoe, C.W., who had all these symptoms in the most aggravated form. If she attempted to read even one line, it gave her so much pain in her eyes and forehead that, for several years, she had scarcely dared to even raise the lid of a book. She was unable to keep her eyes upon any one object for more than an instant at a time, without causing her pain. Others, again, do not speak of any pain or fatigue of the eye; but that, after reading a short time, the letters become indistinct, so that they are obliged to stop or look away at something distant, or close the eyes for a short time, when they can again proceed, the same symptoms recurring.

In regard to the *prognosis* in hypermitropia, Donders thinks that when it is once developed it never gives way. All the inconvenience of the accompanying Asthenopia can be relieved by wearing the proper glasses to relieve the hypermetropia; but the cause, namely (in most cases), a congenital flattening of the eye-ball from before, backwards, will probably remain through life.

As age advances, the "near" point recedes from the eye, as in a normal eye, so that in time it becomes complicated with presbyopia.

Treatment.—In order to correct this optical defect, it is necessary for the patient to wear a pair of convex spectacles of sufficient strength to enable him to see distant objects distinctly, without any effort of the accomodation. In cases where the hypermetropia is absolute, and the patients are not able to see distinctly at any distance, they can, approximately, by trial, select the glasses that will remedy the low degree of refraction of their eyes. But, in all other cases, it is necessary to paralyse the accomodation, and test with lenses of different strength, in order accurately to ascertain the degree of hypermetropia. When we ascertain this fact, we also know the number of the glasses that we must prescribe for them. The effect of the atropine usually lasts about a week, after which the patient can commence wearing glasses. Before, however, he use the spectacles that he is to wear

permanently, his accomodation must first be gradually relaxed by the use of weaker lenses. Donders' rule is to prescribe first that glass that will neutralize his manifest hypermetropia, and $\frac{1}{4}$ of his latent hypermetropia, and every two or three weeks change them for a stronger pair, as he becomes accustomed to their use, until the glasses are reached that we found to be necessary to correct his hypermetropia. Thus, if a patient has a total amount of hypermetropia equal to $\frac{1}{10}$, and a manifest hypermetropia of $\frac{1}{80}$, his latent hypermetropia ($\frac{1}{10} - \frac{1}{30} = \frac{1}{15}$), would equal $\frac{1}{15}$; one fourth of $\frac{1}{15}$ is $\frac{1}{60}$; this, added to $\frac{1}{30}$ ($\frac{1}{30} + \frac{1}{60} = \frac{3}{60} = \frac{1}{20}$), equals $\frac{1}{20}$. We would therefore prescribe, at first, 20 inch convex spectacles, which we would afterwards change successively for + 18, + 16, + 14, &c., until he has so relaxed his accomodation that he can, with ease, wear + 10. It will not be until he becomes accustomed to this last pair that all his symptoms of Asthenopia will disappear.

Strabismus.—Prof Donders was the first to direct attentlon to the fact, that nearly all cases of convergent strabismus arise from the presence of hypermetropia. We know that when both eyes are directed to a near object, they are very much converged,—the optic axes cross at the point to which they are directed. If one eye be covered, and the opposite eye be accommodated for its " near " point, the convered eye will be found to be very decidedly converged towards the nose,—to have, in fact, a temporary convergent squint. This arises from the constant association of the act of accommodating the eye for short distances, with the act of contracting the internal recti muscles. The hypermetropic, however, being obliged to exert the accommodation of their eyes, even when looking at distant objects, it is easy to understand that they would be inclined to contract their internal recti-muscles unduly, so as to increase this power of accommodation. This converges the eyes to a point at a nearer distance than the object looked at, and causes one ot the eyes to turn inwards, while the other is fixed upon the object. When, therefore, they wish to see distinctly with one eye, they instinctively turn in the other. At first the convergent strabismus is seen occasionally only, and in this stage may be prevented by using the proper spectacles to correct the hypermetrophia. After the squint has existed sometime, it becomes confirmed and cannot be cured without an operation.

If the convergence exceeds three lines, a partial tenotomy, upon each eye, should be performed, and the effect controlled by a conjunc-

tival suture, by which means we have the power of regulating our operation, in proportion to the effect we wish to produce.

When Strabismus shows itself in childhood, it should be treated without delay, for, if not corrected, the vision of the "cross-eye" will very soon become impaired.

To get the full benefit of spectacles, in cases of hypermetropia, they should be used both on the street, and at church, as well as when reading or writing,—in fact whenever the eyes are used.

The characteristics of a hypermetropic eye then are :

1st. Parallel rays form a focus behind the retina.

2nd. The "far" point is at an definite distance and negative.

3rd. The eye, in a state of rost, is adjusted for convergent rays.

4th. Convex glasses improve vision.

5th. This affection is usually accompanied by symptoms of Asthenopia and Amblyopia, and frequently by convergent strabismus.

Chapter V.—Presbyopia.

This affection usually develops itself between the ages of 40 and 45. Most persons at this age, although previously enjoying excellent vision, complain that their sight, particularly in the evening, is beginning to fail for near objects, as small print, &c., although they can see distant objects as well as ever.

In reading they will hold the book or paper at nearly arm's length and perhaps bring the lamp almost between their eyes and the page. Reading in this manner soon fatigues them, and they are obliged frequently to rest,—or to resort to spectacles.

In childhood, when the vision is normal, the "near" point is from $3\frac{1}{2}$ to 4 inches from the eye, and the "far" point at an unlimited distance ; that is, we can see objects distinctly as near as from $3\frac{1}{2}$ to 4 inches from the eye, and we can see objects clearly (the size being in proportion to the distance) from that to an indefinite distance. As age advances the "near" point recedes. At the age of 40 the "near" point is about eight inches from the eyes. When the "near" point recedes to a greater distance than 8 inches, Donders calls it a case of presbyopia ; Laurence, however, thinks that it should not be called presbyopia unless the "near" point is at least 10 inches from the eye.

Presbyopia, then, is not an optical defect of the nature of myopia or hypermetropia, but is simply a lessening of the accommodative power of the eye.

It is supposed to depend upon, or to be caused by, the crystaline lens becoming hardened as age advances, so that it does not yield sufficiently to the contraction of the ciliary muscle.

In a case of pure presbyopia where, for instance, the "near" point is 12 inches from the eye, vision will remain normal for all points beyond that distance. When the "near" point is 12 inches distant, and the "far" point at an infinite distance, the accommodation is only $\frac{1}{12}$. Taking eight inches as the normal "near" point, $\frac{1}{8}$ would represent the normal accommodation. Deducting $\frac{1}{12}$ frem $\frac{1}{8}$ gives the degree of presbyopia thus: $\frac{1}{8} - \frac{1}{12} = \frac{1}{24}$. The degree of presbyopia in this case would then be $\frac{1}{24}$. This fraction $\frac{1}{24}$ also represents the strength of the glasses necessary to correct the presbyopia, namely 24 inch convex. Practically, we would probably find that a pair of 30 inch convex would answer better, as the weakest glass that can be worn with comfort, is the one that should be prescribed. Again, if a person's "near" point be at 16 inches, his presbyopia ($\frac{1}{8} - \frac{1}{16} = \frac{1}{16}$) will be $\frac{1}{16}$, and a 16 inch convex lens would enable him to read at 8 inches.

"There can be no question as to the advisability and necessity of affording far-sighted persons the use of spectacles. They should be furnished with them as soon as they are in the slightest degree annoyed or inconvenienced by the presbyopia. Some medical men think that presbyopic patients should do without spectacles as long as possible, for fear the eye should, even at an early period, get so used to them as soon to find them indispensable. This is, however, an error, for if such persons are permitted to work without glasses, we observe that the presbyopia soon rapidly increases."*

If, however, we call all cases presbyopia, where the "near" point recedes to a greater distance than eight inches from the eye, it will follow that we may have presbyopia in cases of myopia and hypermetropia. If a person's far point be at 20 inches from the eye he would be called *near-sighted* and if his near point recedes to 10 inches from the eye, he would be also *far-sighted*.

In some persons, as age advances, the "far" point also recedes so

* J. Soelberg Wells.

as to render the person hypermetropic; this form of hypermetropia seldom exceeds $\frac{1}{24}$. When a person has both hypermetropia and prebyopia, it is necessary for him to use a stronger pair of glasses for reading, &c., than for ordinary use. If a person for instance, wears a pair of 18 inch convex spectacles to correct a hypermetropia of $\frac{1}{18}$, and as age advances his "near" point recedes to 12 inches, even with the addition of his glasses, it will be necessary for him to wear, for reading, a pair of glasses having a focus of about $10\frac{1}{2}$ inches. Thus $\frac{1}{8} - \frac{1}{12} = \frac{1}{24}$ = presbyopia, this added to the lens to correct his hypermetropia, ($\frac{1}{18} + \frac{1}{24} = \frac{1}{10\frac{1}{2}}$ nearly) equals $10\frac{1}{2}$ nearly.

In the very aged, it is necessary to prescribe glasses, that will enable them to read at 5 or 7 inches from the eye, as their vision is usually somewhat impaired.

The following table constructed by Dr. Kitchener may give a general idea of the glasses required at different periods of life when the presbyopia is unaccompanied by hypermetropia or amblyopia.

At	40	years,—	36	inch	focus.	At	70	years,—	12	inch	focus.
"	45	"	30	"	"	"	75	"	10	"	"
"	50	"	24	"	"	"	80	"	9	"	"
"	55	"	20	"	"	"	85	"	8	"	"
"	58	"	18	"	"	"	90	"	7	"	"
"	60	"	16	"	"	"	100	"	6	"	"
"	65	"	14	"	"						

Prof. Donders thinks that when there is no hypermetropia present we should generally advise those glasses to be worn that will enable the person to read distinctly No. I (smallest) test type at a distance of 12 inches.

There is an optical defect of the eye that is occasionally met with called astigmatism (from *a* and *στίγμα*) in which horizontal and vertical lines are not brought to a focus at the same distance behind the crystaline lens. It is relieved by glasses specially ground for each case, these glasses are cylindrical. I have seen but one case of astigmatism.

A very comprehensive article on this subject appears in the Medical Times and Gazette, Nov., 1864, from the pen of J. Zachariah Laurence, M.B., of London.

The paralysis of the accommodation of the eye I have already referred to in a case on page 268.

SPECIMENS OF JÄGER'S TEST TYPES.

No. I.—Brilliant, omitted for want of type.

No. II.—Pearl.

A person with normal vision should be able to read No. II at any distance from eight inches to two feet from the eyes.

temperance was virtue. They wrought with cheerfulness on days of labour; but observed festivals as intervals of idleness and pleasure. They kept up the Christmas carol, sent true-love knots on Valentine morning, eat pancakes on Shrove-tide, shewed their wit on the first of April, and religiously cracked nuts on Michaelmas eve.

No. III.—Nonpareil.

Being apprised of our approach, the whole neighbourhood came out to meet their minister, dressed in their fine cloths, and preceded by a pipe and tabor; a feast also was provided for our reception, at which we sat cheerfully down; and what the conversation wanted in wit

No. VI.—Bourgeois.

was made up in laughter. Our little habitation was situated at the foot of a sloping hill, sheltered with a beautiful underwood behind, and pratt-

No. VIII.—Small Pica.

ling river before; on one side a meadow, on the other a green. My farm consisted of about twenty acres of excellent land,

No. X.—Pica.

having given a hundred pounds for my predecessor's good will. Nothing could exceed the neatness of my

No. XII.—Great Primer.

little enclosure; the elms and hedge-rows appearing with an inexpressible

No. XVI.—2-line Great Primer.

and was covered with

Cannon. *No. XX.—Snellen.*

thatch, which

Correspondence.

PARIS, February 3d, 1866.

To the Editor of the Buffalo Medical and Surgical Journal

My Dear Doctor:

At your request I will endeavor to post you in relation to my whereabouts, and furnish you with some hints upon medical matters in passing. Leaving New York on the morning of the 5th of January, upon the French steamer Europa, for Brest, we passed out through the narrows and commenced our voyage with a bright sun shining over us, and with light and favorable winds. On the 8th it commenced blowing, and the wind increased on the 9th and 10th to a gale, which continued with great severity until the 14th, tossing us about most wildly, and making most of the passengers severely sick. Although greatly retarded in our progress, the ship rode out the storm triumphantly. The English steamers London and Herschill, which encountered the same terrific gale, went down with nearly all their passengers on board. The influence of this tempest extended to all the eastern coasts of Europe, and across the Atlantic to our own shores, causing much loss of life and shipping everywhere. On the 15th, when only about five hundred miles from Brest, and when after escaping the great perils to which we had just been exposed, all were exchanging congratulations upon the favorable weather and our near approach to our destined port, and without apparent cause, the main shaft upon the port side suddenly broke completely in two. Instantly the engine upon the starboard side was smashed generally, in consequence of the breaking of the shaft upon the other side. Fortunately, or Providentially I should say, it was just the time for change of watch with the engineers. The chief was standing at the moment in a position which enabled him to arrest the engine, which he did instantly. But for this, another revolution would most likely have thrust a broken bar of iron through the bottom of the boat. The sea being now calm we were able to remove the floats or buckets from the wheels, and secure them (the wheels) from rotation, which the waves would have occasioned, and which must have torn the now broken engine in pieces and greatly endan-

gered the boat. The vessel carried but little sail, and during the next thirty-six hours following the accident, she made at most five miles and some of the time only one and a quarter per hour, the wind being directly aft. Whilst this condition was highly favorable for making the broken engine secure it demonstrated our helplessness in case of head winds. The wind, though light, continued favorable when we approached Brest on the evening of the 18th, but we were unable to carry sufficient sail to make the port against the current made by the tide, which was at the time running out; the vessel was therefore headed for the channel. On Friday evening we were able to make the harbor of Cherbourg, the wind all this time continuing light and highly favorable. Within an hour after the steamer weighed anchor, it commenced blowing, and during the night increased to a gale. Had we encountered this gale, or had the weather at any time been rough whilst in our crippled condition, a kind Providence only could have saved us from destruction. In the narrow channel and in a vessel which could not be managed by her sails alone, we must have been driven on to the coast. With grateful hearts we disembarked on the 20th, but too happy to escape the numerous perils which we had encountered from the long terrific storm, and the still greater dangers from the accident to our machinery. Had the winds been adverse at any time during this period of four or five days we must have been driven out to sea, drifting about at their caprice and mercy. Had the storm of Friday night commenced but one hour earlier and before we were securely moored in Cherbourg, we must have been driven upon the nearest rocks. You can therefore well imagine that our hearts were filled with gratitude to Almighty God for his merciful preservation when we, safe in harbor, heard the gale of this night.

By means of this accident and our consequent necessity for taking shelter in Cherbourg we were afforded an opportunity of seeing the great naval sea-port of France. It is situated upon the narrowest part of the channel, and has been constructed, doubtless, at enormous expense, with reference to its proximity to England. The harbor was very unsafe until a large wall was built upon the seaward side. This wall, or *digue*, as it is called, is 4,111 yards (more than 2 miles) long, 120 yards broad at its base,

and 16 at its summit, and no less than 22 yards high, occupying the open mouth of the bay, and leaving only sufficient space at either end for the ingress and egress of vessels. The fortifications upon this wall and the neighboring heights are formidable, but I do not believe they could resist Farragut and his modern American fleet for one hour.

We visited the dock yards and fortifications and were much interested in examining the *Trireme*, the only one doubtless of modern times. This, as you are aware, was constructed by the present Emperor, after the most ancient models, before writing his life of Julius Cæsar. The Trireme has arrangements for three banks of oarsmen, upon each side, sitting one above the other, extending the entire length of the vessel. This curiously constructed craft required 130 men for its propulsion. It is highly ornamented, much narrower and somewhat larger than one of our largest canal boats.

Leaving Cherbourg on Saturday evening we passed Sunday at Old Caen, and arrived in Paris on Monday evening. It may interest those who may chance to be in Caen to know that in addition to the many objects of curiosity which invite his attention there is a Protestant church with regular weekly services.

Many changes have taken place in this beautiful city (Paris) since I was here fifteen years since. But the secular journals have made your readers familiar with the great improvements effected by Napoleon III in the Boulevards and Parks, and I pass to a subject which will interest them more—the hospitals and medical men. Here also great changes are to be noted. Roux, who perhaps had performed more capital operations than any surgeon then living, being then more than seventy years old and very active, died some years since. He was constantly at his post in the wards of Hotel Dieu at that time, and a great favorite with all the *eleves*. Jobert, the most brilliant surgeon of that day in Paris, a thoroughly progressive man, has been compelled to abandon his post in consequence of mental imbecility, supposed to proceed from softening of the brain. Honored by the profession, decorated by and made the surgeon-in-chief to the Emperor, he has fallen a victim to *over work*—the uninterrupted strain upon the nervous system attending the vigorous pursuit of our profession. Although

by no means an old man, he is in an asylum, and there likely to close his brilliant and promising career at no distant date. Velpeau, who, since the death of our own lamented Mott, and whose large work on surgery was translated by Mott, is probably the oldest living surgeon, and still retains his vigor. He is by no means regular in his attendance at the hospital, though little of importance transpires without his being consulted. Paul Dubois, who has for a long time occupied the front rank in the department of obstetrics, no longer gives his clinics or attends regularly at maternitè. Having been made a Baron, and having made himself rich by his immense practice, and by the large fees of the Empress and nobility, he now lives in dignified retirement, receiving patients for consultation but one or two hours daily. I regret to say that he is probably going to pass away without completing his work, long since commenced, upon his favorite department. The constant pressure of professional business has prevented his putting into permanent form the results of his reflections and immense experience, until he is now too old to render it probable that it will ever be accomplished.

Cazeaux, who stood second only to Dubois as a practitioner and teacher is also dead. Indeed the department of obstetrics has sustained many losses within a few years, in Paris, and I am fully prepared to endorse the remark made by an eminent practitioner a day or two since, that "the science of obstetrics had been stationary in this city during the last ten years." In uterine pathology and uterine surgery they have made greater advancement, but I sincerely believe from the limited opportunity thus far afforded of judging, that quite as much progress has been made in America in the diagnosis and treatment of all the forms of uterine disease during the last few years as in France.

Appropos to this subject I may inform you that our own countryman, Sims, remains without a competitor in his speciality, both in Paris and London. A collection of his monographs with large additional notes upon uterine surgery and sterility has just been published in London, and will soon be issued in New York by the Woods. Through the generosity of the author I have received a copy of the work, which is neatly got up by Churchill, the great London medical publisher, making an octavo volume of about five

hundred pages. I have to some extent looked over its contents, and find much to approve. The surgical operations of which Dr. Sims is the father, are fully described, with all the improvements which his great experience in their performance has enabled him to suggest. This work, whilst it is by no means confined to the subject of vesico-vaginal fistula, does not profess to be a *complete* treatise upon uterine disease. Sterility is freely discussed and its treatment indicated when it depends upon displacement, flexion, stricture of the canal of the neck, or other deformities, and the author's views of treatment given. There is a very common source of sterility which is scarcely alluded to in this volume, and which has received little notice from writers and practitioners, which, if time permitted, I would like to discuss more fully. I allude to the plugging up of the uterine outlet by a gelatinous secretion of the glands of the cavity of the neck. It often attends endomitritis, and we find the os so completely closed by this tenacious gelatiniform secretion that it is very difficult to remove it by wiping with cotton; it must completely *tampon* the canal of the neck. You will remember doubtless that I have more than once referred to this subject in the City Medical Association, and when time serves may inflict my views upon you more at length.

As I am off in the morning for Spain I must close this rambling communication, merely commending the work of Dr. Sims to your favorable notice, which in my opinion it certainly merits.

Never forgetful of home friends I remain

Truly yours,

JAMES P. WHITE.

UTICA, February 19, 1866.

To the Editor of the Buffalo Medical and Surgical Journal

Dear Doctor:—I send you the following case, which you will publish if you see fit:

On the 25th of January last I was called to see Mr. D. R., aged 77. I learned that on the 23d he had been exposed to severe cold, and on the evening of the 24th he had been seized with severe and repeated rigors. He called a physician who said he had colic. He had not urinated for twenty-four hours, and for three days he

had passed but a small quantity of dark urine; he had no difficulty in micturition. He had pain in the renal region, but more severe in the umbilical, which was aggravated by any movement of the body. His pulse was 104; tongue coated with a yellowish fur; nausea; no appetite; skin dry; bowels constipated; he was dull, probably insensible. There was no urine in the bladder. Confident that the patient had acute suppression of urine, (instead of colic,) and unless speedily relieved would die of uræmic poisoning, immediately called Dr. Bagg in consultation, who agreed with my diagnosis. Ordered a large mustard poultice over the umbilical and lumbar regions; gave calomel gr. xv, and ordered acetate of potassa 20 gr. in solution every two hours. Four o'clock P. M. gave fl. ext. senna ℥ss; 9 o'clock P. M. ordered an enema. 26th, 8 A. M. had had three evacuations; had passed ℥iv of bloody urine; pulse 100; tongue more coated. Ordered to continue the potassa and use the mustard as before. Four o'clock P. M. Dr. Bagg in consultation; had passed since morning ℥iv of dark urine; had vomited; had had a chill. Ordered a powder of calomel and ipecac āā, gr. ss, to be alternated every four hours with the potassa. 27th, no change; continued the potassa. 28th, had passed Oij of clear urine; pulse 92; tongue heavily coated; gave calomel gr. v, and continued the potassa. 29th, same; treatment same. 30th, convalescing; bowels had acted; tongue cleaning; urine natural in quality and quantity. Ordered citrate of iron gr. v, in solution, to be alternated every six hours with grs. x of the potassa. He continued to convalesce so that he was about the house February 5th, and on the 10th walked out.

IRA D. HOPKINS, M. D.

DISEASED MEAT.—At the weekly meeting of the City Commissioners of Sewers, Dr. Letheby, the medical officer of health, reported that the sanitary officers had condemned 9090 lbs. of meat as unfit for human food; most of it was in a diseased condition, and 505 lbs. were from animals that had died from disease. He stated that last week there were 128 quarters of beef condemned in the city markets, and most of it was from animals affected with the cattle plague.—*London Lancet.*

Miscellaneous.

Cholera---By Prof. Alonzo Clark, M. D.

Being a full synopsis of Lectures on Cholera, recently delivered at the College of Physicians and Surgeons, New York, and specially reported for the Medical and Surgical Reporter.

CAUSES AND NATURE OF CHOLERA.

The next point in the consideration of this disease is its cause, and the mode in which that cause acts upon the system, so as to produce the various phenomena, which have already been noticed.

The literature of the subject abounds with a variety of theories of the manner in which the cause of cholera acts. One theory is that the disease is zymotic in a certain degree, in other words, that after the introduction of the poison into the system, by a process of fermentation of some sort, a poison is produced like that which was at first introduced, if not in the body of the patient himself, yet in the excretions.

Another very prevalent theory is that there exists during a cholera epidemic, and as its cause, a peculiar condition, the so-called *epidemic constitution* of the atmosphere, which is widely diffused, and acting as the general cause, brings on an outbreak of the disease whenever it meets certain local circumstances and causes, the so-called *localizing conditions.*

Dr. Snow has another theory, according to which the disease is a communicable one in a particular way; he claims that in the alimentary canal of the cholera-patient a poison is produced, which consists of a something capable of being absorbed by or floating in water; that the water of wells and cisterns, during an epidemic, becomes impregnated by this poison and causes the spread of the disease; that a reason why the disease is so much more frequently communicated to nurses and attendants around the patient than to physicians, is because the former are less cleanly, and hence more frequently subject to introduction of this peculiar poison into the system.

In regard to this theory, certain things must be taken in consideration. Dr. Snow claims that the poison is generated in the alimentary canal, and carried by the evacuations and discharges

from the stomach and bowels. Now, it is testified to by Schmidt, of Münich, that a man, in a state of intoxication, drank a large beer-glassful of the vomit of a cholera patient, without being followed by the first symptom of cholera, and physicians of Münich are said to have freely tasted and even swallowed the choleraic transudations, without ill effects.

Again, a noticable fact in the geographical course of cholera, is that it almost uniformly ascends rivers and streams; thus it ascended the Volga, Thames, Hudson, and the Mississippi. If the disease was propagated by the water contaminated by cholera dejections and evacuations, it is plain that it should descend in its course. In regard to some rivers it may be objected that they are not resorted to for drinking and domestic purposes. But in others which are thus freely used, as for instance the Mississippi, the disease has always traveled up-stream, not down.

Another theory, which indeed may be looked upon as but a modification of the former, is that adopted by several German physicians, which also considers a peculiar poison to result from the discharges of the patients, but not immediately. The cholera discharges, according to Thiersch, are not poisonous at first, but become so, after the lapse of some time, by decomposition and fermentation under an elevation of temperature of at least 50° Fahrenheit. According to facts brought forward in support of this theory, this fermentation which develops the poison in the discharges ceases in about eight days, and then they become inert.

The chief evidence upon which Thiersch bases his opinion is that he fed a number of mice on fresh cholera discharges, and a number on cholera material which had undergone fermentation. The animals fed on the first remained perfectly well, while those that had been living on the fermented discharges were killed by it, under symptoms resembling cholera, diarrhœa taking place before death, and post-mortem appearances being analogous to those in man. Animals which were fed on old cholera evacuations, after fermentation had ceased, suffered as litte as the first.

The logical conclusion, if this theory be true, is that means of disinfecting the evacuations of cholera patients by chloride of lime, sulphuric acid, etc., constitute a chief and important element of prophylaxis. In support of this, it is stated that there are two

prisons in the neighborhood of Münich; in one very strict and energetic measures were adopted, during the prevalence of the disease, to disinfect the discharges of all the prisoners and inmates, and the result was that only *one* case occurred among five hundred inmates; in the other institution, in which no means whatever were adopted of disinfecting the discharges, 15 per cent. of the inmates were attacked.

The evidence in regard to this theory is not yet conclusive; still it deserves attention, and should remain open for further investigation.

Another theory which has been advanced is that the influence of *ozone*, negative or positive, in the atmosphere, is connected with the causation of the disease. There are many quite opposite opinions regarding this theory, and the influence of the presence or absence of ozone in abnormal quantity. Dr. Peters, of Lexington, Ky., during the prevalence of a cholera epidemic, instituted investigations as to this point, and according to his statements, not much change in the ozonic condition of the air could be observed; if there was any change, it was unimportant. The most recent observations probably on this subject are those of Dr. B. W. Richardson, of England. Some of his conclusions as to the facts at present known respecting ozone are stated as follows: It is always present in the air, naturally in the proportion of about 1 part in 10,000; it is rapidly destroyed in large towns, crowded, close, and filthy localities; ozone gives to oxygen its life-supporting properties; its effects are destroyed by great heat; diffused minutely through the air, it produces, on inhalation, distinct symptoms of acute catarrh. When animals are subjected for a long period to ozone in small proportions, the agent acts differently in different animals; carnivora die, after some hours, from disorganization of the blood, while herbivora will live for weeks and suffer from no acute disease. Science has not yet actually *demonstrated* that the presence of ozone in the air can produce actual disease, though the facts approach to demonstration that catarrh is thus produced. During periods of intense heat of weather, the ozone loses its active power. Ozone acts rapidly upon putrefactive organic matter, breaking up the ammoniacal products of decomposition, and hastening organic destruction. In a negative condition of air, i. e.

the absence of ozone, the purification of the organic matter is greatly modified, and the offensive products are increased; wounds become unhealthy and heal slowly in such negative air, and though there is no demonstrative evidence that any diseases are actually caused by this negative condition, the inference is fair that diseases which show a putrefactive tendency are influenced injuriously by a negative condition of the oxygen of the air. It is also probable that during this state, decomposing organic poisonous matters become more injurious. And finally, as ozone is used up in crowded localities, and as it is essential that ozone should be constantly supplied, in order to sustain the removal of decomposing substances and their products, no mere attention to ventilation and other measures can be fully effective, unless the air introduced be made active by ozone. Fever hospitals and other large buildings in towns should be artificially fed with ozonized air.

All, however, that is positively known regarding ozone, in the present state of science, is a bare probability that if it exists in certain quantities, it may purify the air. As to its casual connection with cholera, nothing is positively known.

Electricity, too, has been charged with being the cause of cholera; at least it has been claimed that its presence or absence has something to do with its production. A French observer has made a statement that he observed, during the prevalence of cholera, that he could not obtain sparks as usual from an electrical apparatus, and in England it is said to have been noticed that, during a cholera epidemic, a large horse-shoe magnet attracted and held suspended much larger quantities of iron than ordinarily, and that as cholera abated and ceased, its attractive power diminished also.

These and similar observations, however, do not bear sufficient weight to justify any decided conclusions.

Leaving the question as to the influence of ozone, still another theory has been proposed by Dr. Mitchell, who finds the cause of cholera to be a *fungus* or fungoid spores, developed in the earth or in the atmosphere, and introduced into the system by the respiration. In another branch of this theory, the origin and growth of the fungus is placed into the body itself. This theory received a special importance when Drs. Brittain and Swain announced that they had found in the drinking water of London the *cholera fungi*, which were minutely described. At Edinburgh, however, these fungi could not be detected with the microscope, neither in the drinking water nor in the dejections of the patients. Dr. Parker, the microscopical anatomist of the London Hospital, states that fungi of various sorts are not unfrequently found in the intestinal canal of animals and man, but that they are perfectly inert. The

strongest reason, however, for discrediting this statement is in the result of the investigations of a committee appointed by the College of Physicians of England, who examined into the matter. They reported that the *rings*, which were described as forming part of the cholera fungi by Swain, were found to be remnants of onions, turnips, and other vegetables; the *oval cells*, also claimed as part of the cholera fungi, were ordinary spores of the rust of wheat or corn, such as are frequently found in bread; and the *disk*, also part of the supposed cholera fungus, had a similar origin. So, on the whole, this idea comes to nought, as well as Dr. Snow's theory; unless further and stronger evidence is produced.

Another view is, that it is produced in a manner similar to yellow fever. This theory claims that there are certain wide-spread conditions, atmospheric or terrestrial, which produce a certain predisposition; and that added to these a special miasm is produced, external to ourselves; a certain poison is liberated in the air, unknown in its nature, intangible, known only by its effects, which will re-produce itself, and so render a whole town infected. This we know of yellow fever, which is not an indigenous disease, but can be kept off by rigid quarantine and strict sanitary rule. In just this way it seems cholera is produced—by a special poison, a malaria, the production of certain general wide-spread conditions and local influences, but not re-produced in the system.

All these various theories agree in one point, namely, that *there is a poison* which gives rise to the disease, and this is a fact which cannot be disbelieved.

How this poison is introduced into the body cannot be confidently answered. We might assume that it is absorbed through the surface of the skin, the lungs, or the alimentary canal, etc. But, in one way or another, it is introduced, enters the blood, and circulates through the system.

Introduced into the system, the poison of cholera soon begins to act upon *the ganglionic nervous system*. It is true, the examinations made after death, of the centres and nerves of the ganglionic system have not led to constant appearances; and, indeed, they are not found to have undergone marked changes, except occasional softening and enlargement. But still this is the best hypothesis which we can present, as to the manner in which the

poison of cholera acts upon the system, and that we can find no decided anatomical lesions, is no real excuse for not accepting it. A thousand changes are produced and observed in the innervation of the organs and tissues of the body, characterized by the most marked phenomena, without our being able to discover any physical appearances in the nerve structure, which would account for them. Certain medicinal substances appear to have specific affinities in their action, to different parts of the nervous system; strychnia, for instance, upon the spinal system, opium upon the brain. Now, in a case of strychnia-poisoning you observe the most fearful commotion of all the muscles controlled by the spinal axis, resulting in death. Still, if you search after death for any marked anatomical lesions in the spinal cord or nerves, none will be found. Thus, again in a person dead from an over-dose of opium, though congestion may be found in the vessels and meninges of the brain, the most careful examination will not discover any microscopical changes in the brain-cells or the minute structure of the organ. Thus certain agents, indisputably, exert a powerful action upon various parts of the nervous system, with no accompanying special lesion that can be observed; we might run through the whole of the medicinal articles acting upon the nerves to illustrate this point.

While, then, the absence of pathological evidences after death forms no objection to this hypothesis, there are certain analogies which speak strongly in its favor. The branches or filaments of the sympathetic nerve, which go to the eye, govern and regulate the circulation of that organ; if they are divided or disordered, you observe hyperæmia, echymosis, and a series of changes, which finally lead to ulceration and destruction of the organ. So the ganglionic system everywhere, but more particularly in the alimentary canal, governs and regulates capillary circulation. The poison of cholera begins to act upon the ganglionic system, partially paralyzing it, and gradually increasing in its effects during the period of diarrhœa. The blood flows into these vessels in unusual tides, giving rise to hyperæmia more or less intense, and from which the copious discharges are derived; this goes on until the blood, by the constant drain of its fluid constituents becomes markedly and seriously changed; then follows the disturbance in the spinal sys-

tem, the cramps and convulsions, which, it is probable, are entirely reflex. The hyperæmia at first does not manifest a tendency which it afterwards shows; but, as it continues, much as in the eye after division of the branches of the sympathetic nerve, assumes an inflammatory character, for we cannot, on looking at the post-mortem appearances avoid the conclusion that there is inflammatory hyperæmia, or even a certain degree of inflammation. There is, however, no organizable, plastic deposit. The material thrown out, as described in a former lecture, is something like the exudation of diphtheria; and, it may be added here, that this infiltration of granular matter into the intestinal mucous membrane and glands, seems to be almost characteristic of the disease.

Dr. Horner, as early as 1832, noticed and described the detachment and denution of epithelium, and sloughing of portions of the mucous membrane; and he believed the disease to be inflammatory. Pirogoff, too, says that the cholera appearances have great analogy to inflammation.

In summing up the evidence regarding the cause and nature of cholera, it may be stated then, that there is a poison, the exact nature of which is not yet perfectly understood; that this poison, introduced into the system, causes disturbances of innervation, or a sort of paralysis of the ganglionic nervous system; that this leads to extensive hyperæmia of the alimentary canal, resulting in the symptoms described, and to the reflex phenomena alluded to, and as the disease progresses, obtaining more or less an inflammatory character.

Bifid Uterus and Double Vagina.

The following interesting example of this malformation was communicated to the Boston Society for Medical Improvement (Aug. 28) by Dr. A. B. Hoyt, late Surgeon 25th Mass. Vols.:

The subject of it, aged 57 years, died of a cancerous tumor occupying the left illiac region. She had always been healthy until this disease made its appearance. There had been nothing unusul with regard to menstruation, which ceased at the age of 40. She had given birth to three children; her labors were always severe—the last one unusually so; this occurred twenty

years before her death, and was achieved without instruments. The two previous confinements were protracted, but whether there was an abnormal presentation, or if instrumental aid was required, is not known. Her husband, during the patient's life, was ignorant of the fact that any unnatural condition existed. When pregnant, and whilst lactation was going on, menstruation was always suspended.

At the autopsy, the malformation was revealed for the first time, though there were some reasons for thinking that its existence had been known to the patient herself.

On examining the organ, it was found that there were two vaginæ, about equal in size, the left one perhaps a little the largest, and similar as to walls, rugæ, etc. They extended from just within the vulva to the uterus, and were separated by an interval filled with compact cellular tissue. Close to the uterus the vagina communicated with each other through an opening of about one fourth of an inch in diameter. From each vagina a probe passed into a separate uterine cavity. The os uteri in each vagina was small and imperfectly developed, as also was its orifice. The organ, as thus composed, was hardly larger than the normal uterus, but about one and a half inches from the os, it bifurcated into two symmetrical cornua, as large around as the forefinger, and about one and a half inches long; these terminated in the Fallopian tubes, which, with the ovaries and broad ligament, were natural. There was but one ovary to each cornu. The cornua were covered with peritoneum, except where the two layers of the broad ligament separated, and it also covered what might be called the fundus of the compound portion of the uterus. There was nothing to indicate that one side of the uterus had been impregnated and not the other, unless it was the greater capacity of the left vagina.—*Boston Med. and Surg. Jour.*, *Oct.* 26, 1865.

Treatment of Cholera Infantum.—Prof. Pollitzer, of Vienna, in a treatise on this subject, published in the *Oesterr. Jahrb. fur Kinderheilk*, strongly recommends the use of camphor in acute intestinal catarrh and cholera infantum—the earlier in the disease the better.

Editorial Department.

Legal Liabilities of Physicians and Surgeons.

The vexatious suit for mal-practice recently submitted to our Court, calls our attention to this subject at the present time, and induces a consideration of some of the reasons why physicians and surgeons, the latter especially, are not as safe with courts and jury as are other persons, not belonging to the professions or to corporations. That surgeons are, and of right should be, liable for ignorance or unskilful management in the treatment of cases entrusted to their care, there can be no doubt, and there is no reason for complaint that such cases should be submitted to competent and impartial investigation. It is generally understood by physicians that the sympathy of a jury of citizens is not generally with the doctor, but rather on the side of the poor, ill-advised, unfortunate victim of incurable injury, so that often when no real blame can be attached to the medical attendant he may be obliged to help pay the costs of a litigation, which every one instrumental in encouraging, of right, ought to bear alone.

It is ignorantly supposed by the great majority of people that deformity and disability after injury constitutes ground of complaint, and that the surgeon is under obligation to make everything perfect which he attempts to remedy. A jury when told that oblique fracture of bones always results in shortening, do not understand that this fact constitutes perfect exemption of the surgeon from liability, but still hold him responsible for a result which human ingenuity has never yet devised means to prevent. When it is shown by unanimous testimony upon both sides that stiffness of joints results from inflammation, effusions and long continued rest—from causes wholly distinct from treatment, and beyond the control of a surgeon, a jury will not be able to see that there is no mal-practice, but that on the contrary the very best possible attention has been bestowed. Men uneducated to the distinction, are often unable to see the value of a *principle*, and are ready to compromise what they see clearly to be right, to the prejudice or caprice of an associate who thinks, perhaps innocently, that a few dollars are of no great account in comparison with the loss and

pain sustained by serious injury, added to litigation, even though it be ill-advised and unjustifiable.

In the case which we have published somewhat in detail, on account of a local interest in its results, the verdict of the jury is certainly explainable upon the basis indicated, and upon no other. It appears that mal-practice was not entertained at all, for certainly fifty dollars, without costs, was a sum too insignificant to justify such conclusion. The medical testimony as furnished us by counsel for defense, is in some respects quite remarkable. One physician called for plaintiff, who himself uses crooked splint, testifies truly that there is nothing in the condition of the arm, showing improper treatment—that such results might follow the best directed efforts. One testifies that straight splint is *improper*, etc., etc., but he has never heard of Colles' Fracture, and says that Hamilton's work on Fractures and Dislocations "is authority with *some* surgeons." Reads Gross' Surgery every week, but knows of no author who recommends straight splints. The other medical testimony is direct, positive and harmonious; it attributes disability wholly to injury, and justifies the use of straight splints in cases of fracture of the lower end of radius; shows that as much stiffness and deformity may and often does follow slighter injuries or similar injury after the best treatment.

The case in itself is of very little importance, and the verdict of the jury when rightly understood is decidedly for the defendant. While it exonerates him from the charge of mal-practice, it still allows a mere trifle to a patient who had been made to believe herself improperly treated, because the use of the hand was impaired. She had come to believe this, however, upon very insufficient and uncertain grounds, and one eminent physician who was early consulted without mistrusting that his opinions were wanted for any other than professional purposes, congratulated her upon the favorable results she had obtained after so severe an injury, and told her she might be "indeed thankful for so good a hand." This fact did not appear in evidence, but the next hearing will produce it. Dr. ——— was not invited to give evidence for plaintiff.

It is a humiliating thing, that there should be any discrepancy in medical testimony in such a case. There was an almost unanimous agreement upon every point submitted, and it seems incredible

that there could have been any disagreement whatever. The principle involved is of some importance, not only to the profession but also to the public.

Suits for mal-practice in Buffalo have grown so rare, that they would be unknown unless imported, as in this instance. A few years since a prominent and wealthy physician in the city defended a suit of this sort successfully, contributing something over one thousand dollars in his own defence; in defence of his profession, and the community untold thousands; for the community are defended and benefited when justice and right are maintained and established; the profession also is strengthened when its true duties and liabilities are rendered apparent. The influence of this suit has been felt by the community for a long time, and there has hardly since appeared a physician willing to prejudice a jury, without just grounds.

The real liability of physicians and surgeons is much better understood now than formerly. Deformities after fractures, by Frank Hastings Hamilton, revolutionized the opinions of surgeons the world over, and a work by the same author upon Fractures and Dislocations, is "authority" in that department wherever men read the English language. If there are physicians in America who have never heard of the distinguished surgeon and author of Dublin, Mr. Colles, who in 1814 gave a very full and correct account of fracture of the lower end of radius, we venture the opinion that there is not a surgeon of any attainment in all Europe, who has not read or heard of Hamilton's surgery, and regards its teachings as eminently correct and reliable. We gladly make a little digression to mention the name of an author who has done so much for surgery as Frank H. Hamilton, and who, at the same time, has given a standard authority upon deformities after fractures, which will influence courts and juries, and constitute an imperishable defence and refuge, making his name and fame immortal.

It is folly to complain of the prejudice or caprice often manifested by a jury in suits for mal-practice. It cannot be expected that all its members can discriminate where men supposed to be educated to the point, disagree. The profession must be first elevated to a degree of intelligence sufficient to insure harmony in the truth, and *truth* must be the standard of trial. Claims of mal-

practice most frequently grow out of want of fidelity in the profession, and can only be suppressed and avoided when practitioners observe the *Golden Rule*, "Therefore, all things whatsoever ye would that men should do to you, do ye even so to them."

Superior Court of Buffalo.

Oliver J. Ostram, *against* Peter Tertius Kempson. March Civil Trial Term. Before Hon. Isaac A. Verplanck and a jury. March 12, 1866.

John D. Hill having been sworn testified: Have been a practicing physician and surgeon for seventeen years; reside in Buffalo; have examined Mrs. Ostram's arm and wrist, and found it had been injured; my impression, from the examination is, that there was a fracture of the lower end of the radius, known as "Barton's Fracture," usually within an inch of the articulation; it is possible there might have been a dislocation of the ulna, or there might not have been; there is a projection there which might have occurred from inflammation; I think a surgeon could have told at time of injury whether it was fracture or dislocation; it was probably an oblique fracture; I think this could have been told by a surgeon at time of injury; it usually can; there is no evidence that there was a dislocation of the joint; dislocation of the wrist joint is not as common as fracture; fractures of the radius are common; dislocations of wrist joint without fracture are not common; I believe I have seen one out of a dozen or fifteen cases; no difficulty in ascertaining whether it is a fracture or a dislocation in the first stages; if my idea is correct the usual way of treating, or the way I treat is, to put the arm half way between supination and pronation; it keeps the bones in a line with each other; *it should not be laid flat because it brings bones cross-wise, and draws the radius down and throws the ulna out, producing greater deformity.* The position I have named keeps them in place, dropping the hand towards the ulna side, the extension muscles of the thumb, which are attached to the radius, prevent the muscles from drawing the radius back. *I have always used the crooked splint, either the Bond splint or the Day splint;* the inside splint is a wedge splint

to keep the shafts separate. I should put a bandage around the hand extending to the wrist, then splint and bandage up to elbow; splint should be wide enough so that bandage would not press upon the arm, that is all. I direct patient to keep arm on pillow or in a sling, hand protruding through sling so that the weight of the hand would drop on the ulna; if there be great inflammtion let the arm rest on pillow and not in sling, and if painful loosen bandages. I should clip the edges of bandages, but would not take it off unless absolutely necessary, under a fortnight or longer; keep arm in that position, giving attention to indications. In patient of Mrs. Ostram's age arm should be kept in spints from forty to sixty days; in case of fracture consolidation of the bone will have taken place in that time sufficient to retain fracture in its position without aid of splints. Change dressing once a week; this I usually do; this may not always be necessary, but as a caution; the condition we expect when splints are removed is, that bones are in place and the arm in normal condition, with some slight enlargement and a temporary stiffness of the hand. I should expect motion all the time, but not to great extent for some weeks, might be six to twelve weeks in ordinary cases; if at end of that time there was no motion of fingers I should suppose there had been inflammation of the flexor tendons, producing adhesion. At twelve or fourteen weeks if I found this condition with large projection of ulna, I should suppose inflammation with a dislocation of ulna from its articulation with radius, and that it was still out of place. *It would not be good practice in case of fracture of radius to dress on a straight splint*, with hand flat, for the reasons I have given before; I would in simple dislocation adjust dislocation and dress on straight splint; the other way would not be necessary. In fractures we reduce parts to their places. [Mrs. Ostram is produced and witness examines wrist and says:] I think the radius approaches the ulna, making arm crooked; there is also a projection of the head of the ulna; it may have been produced by partial dislocation of its articulation with head of radius, or it may have been produced by inflammation of the articulations making a deposit between the articulating surfaces of the radius and ulna. The radius is thrown down on the ulna that carries the tendons that play through a sheath on the

wrist to the finger, and thus draws the fingers out of line, instead of closing them; it draws them against the thumb instead of the palm of the hand; I think there has been inflammation of the sheath and tendons not sufficient to prevent flexion; the effect is loss of use of it, do not say entire loss; its usefulness is greatly impaired. If at end of eight weeks I found swelling and a want of use I should infer the case was imperfect and should try to get motion in fingers; should use embrocations, probably could do nothing by way of re-adjustment after the eighth week. The appearance of the arm shows displacement; don't know but it might occur with any one, but I never saw a case when treated with pistol splints. The cases of this kind that I have seen were treated with straight splints; I have known such results from straight splints, what I call improper treatment; I do not remember to have had a case where patient was as old as Mrs. Ostram; have had them at fifty years of age; I suppose after fifty there is greater liability, less recuperative power in nature; if cure is complete it takes a long time; no more difficulty in keeping bones in place in old than young. If she has had fingers become eventually flexible I should think it favorable to further recovery.

Cross-examined.—My business is principally confined to family practice. The splint I have spoken of is the pistol splint; can't tell how long it has been in use; it was used when I commenced practice; I do not think there is any difference in the profession about the use of straight or pistol splints; have heard surgeons speak of using straight splints, but know of no authority for it. Hamilton is an authority among a portion of the profession; think probably he is; don't know whether he sanctions use of straight splints; never read the work on that subject—have read portions of it; I don't know any authority by name of "*Smith on Fractures*;" never read his work; have read some of Dr. Mott's writings; don't call to mind what he says about this particular fracture; don't know if he endorses straight splint; I don't call any recent author to mind who says anything in regard to straight splints. This was what is called the "Barton Fracture," which includes any fracture which comes within one or one and a half inches of articulation of carpus. I cannot tell the direction of the fracture; all I mean to say, it was an oblique fracture. This fracture did

not necessarily imply a displacement of the ulna nor of the carpus; I call the end of the radial bones at either extremity the head. The styloid process may or may not have been broken; in injuries of this kind there is a bulging at once; it becomes large at once—large on the palmer side; it is caused by a displacement; this is caused by the action of the muscles; it is apparent on the dorsal side, but not in the same degree; it is not swelling from inflammation, which may not take place in twelve or twenty-four hours; the arm over the seat of fracture would perhaps be tender at once or in a few hours; if puffing is caused by fracture it will subside soon; if sprain, it may not subside. I have never seen a case where it was difficult to determine nature of injury. Having reduced the fracture I would apply a bandage round the fingers and to the wrist over the head of the radial bone—not beyond the radial bone; some carry bandage nearly to elbow: this I think immaterial; if I used Bond's splint I should do it; if the pistol, with wedge inside splint, I should not; this bandage being on I then apply splint and bandage arm permanently; the object of the pistol splint is to dress the hand toward the ulna side of wrist. If there was a fracture of the radius and a very considerable displacement of the ulna this would be proper; this would not drive the ulna into the carpal bones and produce inflammation; it would hold both ulna and radius in place. The natural condition of the hand is straight on a line; whether the part injured should be placed in a natural position depends on the nature of the injury and the tendency to displacementof the fractured bone by muscular contractions; bandaging alone will not control the muscular action of the hand and wrist; it will impede the flexor muscles of the hand and wrist, but not control them perfectly, but may imperfectly; after taking off the bandages there is always anchylosis present in a greater or less degree; the recovery is gradual, depending on the age of patient and other conditions; have frequently seen it when patient could not shut the hand when bandage was removed; cannot tell how long I have known it to continue; don't remember that books state cases where it has continued from *one* to *five* years; I think books state that recovery is from one to six months; don't remember what Hamilton, Smith or Mott say on that subject. I intend to keep posted; Hamilton

and Smith are late works on this subject. Have read several articles in American Medical Science, and Prof. Gross' work; this I read more or less every week. Dr. Weiss had a case like this; treated with straight splints; can't tell age of patient; saw a case six or seven, may be more years since; patient middle age; hand not useful; can't call to mind another case of this kind; that case was similar; don't remember habits or age of patient; can't tell how many cases of fracture of radius I have had; I have now ten cases under treatment; one middle age, one past middle age; never have known an unfortunate result from use of pistol splint. In determining results we must consider age of patient, their manner of life, their own care in absence of surgeon. If patient makes efforts to use hand too early it is injurious; loosening bandage by patient is improper; these things would tend to counteract efforts of best surgeons. I do not think this fracture would tend to produce an inflammation of the point where the bones articulate with the carpus; there would be some tension of the muscles. If the fracture was occasioned by falling on back of hand there would be more tension; this would continue longer before recovery in a person of Mrs. Ostram's age than in a middle aged person; if the fall was on the dorsal side of the hand it would produce more of inflammation than on the other; it would be more likely to produce dislocation; it would increase liability to inflammation; it might occur and the inflammation be kept in reasonable bounds; there would be considerable inflammation. If there was a dislocation of the wrist its surrounding ligaments be ruptured; *a high state of inflammation would not supervene from a disruption of the ligaments of the wrist.* If there was a fracture and luxation of the joint in a person of Mrs. Ostram's age there would be a question whether she would recover; I think the probabilities against her complete recovery; this is a probable result, independent of the skill of the surgeon. There might be a fracture and no luxation. *I never heard of "Colles' Fracture of the Radius!"*

Re-direct examination.—If the bone gives way dislocation is not likely to occur; I perceived no luxation except of the ulna. Gross is best authority; Valpeau, by Mott, Errichson and Ferguson.

Oliver J. Ostram, the plaintiff, sworn, testified: Live in Buf-

falo; lived near Fort Erie in Canada, in 1862; am acquainted with defendant; in 1862 he was a physician and surgeon at Fort Erie; I called him in fall of 1862 to see my wife who had fallen and hurt her wrist; she was in her chamber and called me, and I went up stairs; she was sitting on the bed; she had been up stairs half an hour; when she went up she was not hurt, but when I went up I found her wrist hurt; I then went after Mrs. Forsyth, and then after defendant, and he came back with me; we returned within an hour; I went in room with defendant and he fixed her arm as soon as he could; have most forgotten what he did; can't remember; he put on splint on arm reaching from fingers to elbow and a bandage on it before he put splints on; I held her wrist and he pulled it and rolled it and, then put on splints, and I can't tell what; the hand lay on the splint flat and straight and was so fastened and bandaged; Mrs. Forsyth and defendant were there; I believe he called it a dislocation; he told her to carry it in a sling; can't tell how or if anything was said as to how hand should be carried; he ordered sling for Mrs. Ostram and she had it; he came again on Sunday, (next day;) can't tell what he did; I had no help when he was there on Sunday; he made his last visit in February; before this accident my wife's health was good; she was doing her own work; she was about 60 [64] years old; it was the left arm that was injured; I moved from Canada in March, 1863; in February, 1863, had Dr. Learned and Dr. Elliott examine injury, and afterwards the two Drs. Dayton and Lothrop, in June, 1863; her hand was in bad condition, was weak, and she was unable to use it; has been weak ever since, and she has not been able to do work as before; she has worked with her right hand.

Cross-examined.—The Doctor put splints on both sides of arm; the one on top of arm short, and the one underneath reaching to hand; before he did anything he examined to see what the matter was; I held the wrist to help him draw it into its natural place; he then bandaged it; think he did not bandage hand before he put splints on; he bandaged wrist before he put splints on; I think he put splints on before bandage; think he said wrist was dislocated; he told her she could lay her arm on her lap; don't remember any pillow being used.

Sarah Forsyth sworn for plaintiff, testified: I live in Fort Erie and have lived there twenty-four years; was present when defendant was called and arm was dressed; he came, examined arm and proceeded to bandage it; he then put long splint on under side of arm supporting hand and then put a roll on to elbow; he did not give any opinion as to injury; hand was placed on a straight splint and bandaged; he ordered warm water to be used to wet arm, and to carry it in a sling, to be placed so the hand would pass through the sling; I remained until he went away; the wrist was much swollen on both sides at the time.

Cross-examined.—I was called about nine o'clock in evening and found Mrs. Ostram in bed up stairs; she seemed to be suffering; did nothing to relieve her until the defendant came there; was present all the time he was there; did not hear him say what injury was; when I got there I thought Mrs. Ostram was under the influence of liquor; my opinion is she was accustomed to be so; I then was her nearest neigh'bor; saw her frequently; I saw her when I thought her under influence of liquor; can't say that I saw her drink liquor; can't say plaintiff was under influence of liquor at the time; I don't recollect the defendant expressed an opinion as to how long this injury would last.

Re-direct examination.—I have seen Mrs. Ostram four or five times under the influence of liquor; I was at plaintiff's when defendant dressed wrist on first and second times.

Mary Ostram sworn for plaintiff, testified: I went home Sunday morning; when defendant came he undid arm and did it up; he said there would be no change in so short a time; asked him how long before she could use her arm; he said in four to six weeks; asked what it was; he said it was out of joint; did not loosen splints when he undid arm; he told me to loosen bandage when I bathed arm; she was to carry her arm as would make her most comfortable; don't remember as anything was said about a sling; he came again on Tuesday, loosened upper bandage and bathed with tepid water; arm and fingers were swollen; I stayed two weeks, and during that time he was called away; I took care of my mother while I was there; followed defendant's directions; when I left my sister, Mrs. Rice, and my cousin, Fanny Butler, took my place; saw no difference the two weeks I was there; it was

two or three weeks before I saw it again; was no better then; saw her again almost three weeks after; I was present on another occasion when splints were taken off; this was on my third visit; the hand was swollen and stiff; was black and blue on inside back to the wrist; she had no power to move her fingers; saw her try to move them; defendant tried, but did not, as mother stopped him; he said it had not got along as well as he had expected in first place; said she would have use of her hand in six months; the wrist was swollen, but think you could see the joint; he directed to bathe it with liquor and liniment; after splints were removed mother carried her arm in a sling; she did before part of the time and defendant found no fault with it; when splint was removed he gave no reason why arm did not recover; I helped father and mother move and get settled, and then went down occasionally and baked and helped what I could; my sister died a year ago last November; mother first got use of her fingers three or four weeks ago; up to that time had no power over them; it was ten months or a year after injury before she could bring thumb and finger together, but had no strength; she can now clasp her hand, but hold no weight; can hold fork, but not with pressure; before injury she was a great hand to work; she does not sew now; can't say if she knits; have not seen her do it.

Cross-examined.—I went to father's in forenoon and defendant came soon after me; told me to loosen upper bandage; he did not tell me to loosen lower bandage nor to touch it; after his second or third visit he was called away; can't tell how long he was gone; he told me before he went to loosen upper bandage; did not want lower one disturbed; the arm stayed about as it was while he was away; I did not loosen lower bandage; mother set up during this time; she walked around; did not attempt any work; I stayed first time two weeks, then went away three weeks, then came and stayed a week, then went away and stayed two or three weeks; dressing not taken off but once while I was there as much as a week; Miss Bryan was there two or three weeks to do house-work; then Sarah Roth came and stayed awhile; she left day before father moved to Buffalo.

Lewis P. Dayton, sworn for plaintiff, testified: Have been a physician in Buffalo 20 years; have seen injury on Mrs. Ostram's

arm; I saw it two years ago in spring; she lives in Black Rock; have examined it lately; there is a change in the hand since I first saw it; hand has become more limber. From my examination, I think there was a fracture of the lower end of radius—oblique fracture; from the outside oblique to inner side of bone; probably more or less injury to ligaments of joint. I think a surgeon could tell what the matter was; possibly he might be mistaken; the swelling might deceive him; a dislocation of the wrist joint would be an extraordinary occurrence; I should treat dislocation by extending ligaments and reducing; when reduced should bandage; might splint, or not; should keep arm in line; if fractured, should reduce and place on a curved splint, curving the hand to the ulna side; I should adapt dressing to circumstances, looking at well arm; with bandages to hold splints in place; should tell patient to place arm in sling, having weight rest not on hand but on arm.

Good surgeons dress arms on straight splints; I prefer dressing on crooked splints; my objection to straight splint is, there is more danger of shortening radius and throwing out the ulna; no other objection; any displacement of bones will weaken bones, though we have cases where broken bones are as strong as ever; I do not think the bones in Mrs. Ostram's arm in the right place; there is, at any rate, a prominence of the ulna; the hand is not perfect; there is a stiffness of fingers produced by injury; there are cases of this sort that have been adjusted where there is no such results; have treated cases of fracture of radius—four or five cases; I don't know that any of them show this condition; in my cases they recovered power of hand in from a few months to years; to keep power in hands I have recommended friction and motion; I have seen cases where motion was very little on removal of splints; never saw perfect anchylosis, but very near; I had one case—patient 71 years old—when I took splints off she could move fingers a little; slight prominence of ulna; she got use of hand after two years; improvement was gradual; don't remember ever seeing case like this one; this arm has not been restored to its perfect condition; I think defendant did not accomplish what he intended; did not obtain expected results; I would not dress hand on straight splint; should use curved splint—to succeed best I could; don't think straight splint as good as curved; if hand

was curved on splint it might answer same ends; I have always used curved splint, and *have no experience with the straight splint.*

Cross-examined—I have treated four or five cases of fracture in all; have used curved splint; I have not obtained as good results as expected; two occurred with old persons; did not recover as soon as I expected; in both cases anchylosis was great in wrist and hand, and of long continuance; in one case two years after there was a good deal of anchylosis of the whole hand; in the other case it did not continue so long—say 18 months to two years, and I do not think it perfect yet; the lady is about 52 years old; it was Mrs. Gordon, at Black Rock; I do not think this attributable to mal-practice; she uses the hand about her work; this injury occurred thirteen years ago; she also had a fracture of the shaft of the radial bone; have seen no cases in charge of other physicians; in a fracture of this kind there would be displacement in some degree; it would produce inflammation in a case of this kind; *I do not consider this wrist as evincing bad practice on the part of the attending physician.*

Re-direct examination—When there is displacement it takes longer to recover.

Nancy Purrington sworn for plaintiff: Have known Mrs. Ostram eight or nine years; visited her during that time; saw her first after injury after she had moved from Canada; she was healthy and a hard-working woman; have visited her at Black Rock; her daughter, Mrs. Riel, got tea for us; she had no use of her left hand; have never seen her when she had drank too much.

Cross-examined—I am related to her by marriage on husband's side; my acquaintance was more with children than old lady.

Mary Ostram, recalled by plaintiff: Never saw mother under influence of liquor.

Plaintiff here rested her case.

Defendant's counsel then moved the court for a non-suit, on the ground that the plaintiff had failed to make out a cause of action; 2. That there was no evidence of mal or other improper practice on part of defendant shown.

The court denied the motion, and defendant's counsel excepted.

Sandford Eastman, sworn on behalf of defendant, testified: I reside in Buffalo; am a physician and surgeon in practice, and have

been for fifteen years in May next; I practice surgery more than average of profession; have treated fracture of radius and ulna; have a good many cases; it is usual to treat with splints on front or back of arm and hand; some advise splint on one side, some on the other, and some on both sides; some advise straight splints, some curved splints; I think a straight splint good treatment; it is recommended by best authority in this country; good cures can be expected by use of straight splint; Dr. Gross recommends straight splints; he is among the best authorities; Dr. Hamilton recommends straight splints; Dr. Smith, of Dublin, also, and Dr. Mott does the same; I should consider it good practice to dress by bandaging hand and applying splints and putting on permanent bandage. In all situations the muscles are strained by fracture; there would be more tension if the fall was on the back than on the palm of the hand; in a person of this age (64) there would be uncertainty in the re-contracting of ligaments; the ligaments lose their contractile power; good practice to put arm in sling; it would not be improper to direct that the arm rest on pillow or table. In fractures of radius there is almost always displacement of ulna; it is usual to have stretching of the tendons in these cases, and consequent stiffness after such injuries; there is always stiffness of parts; it is depending on the injury and its consequences; it acts on the entire hand; much may be due to want of motion; this want of motion is necessary to a cure; it remains a longer or shorter time; have known it in one case two years after, and last time I saw her the hand was stiff; our books teach us that this often remains for years, and even for life, in cases well treated; it is alwasy longer with old than young people; the prominence of the ulna often remains in spite of best treatment and most skillful attention. The straight splint is the splint I use.

Cross-examined.—In half the cases I have had, I have not succeeded in reducing ulna to a line; I have succeeded in giving motion; I never saw dislocation of wrist joint; I have had difficulty in the early part of my practice, in determining between a fracture or dislocation; the muscles on the back of hand have nothing to do with motion of hand; they are on the palmer side; the ulna bone has nothing to do with motions of hand, it depends on muscular action, the projection of the ulna has nothing to do with it; I use

a straight splint—a combination of the Bond and Swinburn splint; I cannot say, if hand was swollen and black and blue, it was caused by bad practice.

Julius F. Miner, sworn for defendant, testified: Reside in Buffalo; am a surgeon; have been in practice 20 years; have made surgery a specialty; have practiced it almost exclusively as a business for last six years, in amount unsurpassed by any other in the State outside of New York city; have frequently been called to treat fractures of radius; during the past winter I have treated seven cases in one week; I have seen and examined Mrs. Ostram's arm; I think no surgeon can determine the exact injury by present examination; cannot tell exact location or amount of displacement, if comminuted or not; my impressions and best knowledge are, there was a fracture of lower end of radius; that it extended into articulation or not, can't say, or if commiunted can't say; I think the lower extremity of radius has been a little shortened, and perhaps approximated to ulna, and as the radius constitutes almost the entire base on which the carpus rests, it changes the direction of the hand—draws hand to radial side and renders ulna prominent. If body fell upon hand it would be more likely to displace ligaments than if no weight had fallen on it; it would be proper, in dressing such an injury, to bandage hand, and put on splints with permanent bandage; in my judgment there is no difference whether you use a straight or pistol splint; it would be a proper direction to place arm in a sling; that would place hand in a condition between pronation and supination; there is almost always a deformity in this fracture, which has led the profession to give great attention to it; there is more liability to stiffness and disability with old people than young; after removal of splints there is almost always a great amount of stiffness; people of Mrs. Ostram's age recover much slower than young people; that is owing to causes wholly beyond control of surgeons; I have case where I am not aware they have recovered any more than the one in question; this case I dressed with Dr. Barnes and there is as much disability as with this lady; this is a case where there is but little if any deformity; I have other cases where time is shorter and the inability considerable; there are cases of this sort where recovery is after some years; I see nothing in wrist that is evidence of improper treatment on part

of surgeon; I should infer it was owing to causes beyond the control of attending surgeon.

Cross-examined.—If I had seen injury within an hour, think I could tell what was the matter; there might have been dislocation or not; I think dislocation of wrist joint very uncommon; when there is fracture of the radius there is greater liability to rupture ligaments that attach the ulna to carpus; in Mrs. Ostram's arm the ulna is in its natural position; the radius is thrown down upon ulna. I believe a fracture may be as well dressed on straight as crooked splint; I don't remember that I have a case where hand slides off as much as Mrs. Ostram's; if it recovers in motion and use, it will become more natural in form; I think there is uncertainty whether she will recover her hand; have had case where fingers could not be moved at end of six weeks; had case where the hand could not be closed in four or five months; this was a lady about 45 years old.

Re-direct.—Sprains or injuries often allow hand to slide and produce results like this; this sometimes happens without injury.

John Cronyn sworn for defendant, testified: Reside in Buffalo; have been a practicing physician and surgeon sixteen years; have seen and examined Mrs. Ostram's arm; its present condition evidences a fracture at lower extremity of radius; there are three kinds of fracture; the one in this case seems to be an impacted fracture, oblique; this is most common; I place bandage over splints, not on arm, though some do; it is not improper to do up arms in straight splint; in the many cases I have had I never but once used any other than staight splint; in such cases have known good results; once I put arm in pistol splint; I got no better results; it is proper to dress with either; the stiff state of fingers continues a long time, from months to years; in one case like this Dr. Hamilton treated it with similar results to one in suit; I had care of same case afterwards.

Cross-examined.—If I had been called within an hour could have told what injury was.

Sarah Forsyth re-called by defendant: While plaintiff lived on farm near me, he had a hired girl; this was while ordinary family was there, one girl only; they had hired girl spring, summer and part of fall of 1862; no hired girl previous; Mrs. Rice and Miss

Ostram were there; I was in frequently to plaintiff's after accident; in February following Mrs. Ostram began working round the house; she had no hired girl at that time; they moved about March 1st; after they moved in July, 1863, I visited Mrs. Ostram in Black Rock; she seemed to be well; heard no complaint; she was engaged about ordinary duties of house-keeping; she had just been baking and taking bread from the oven; plaintiff had no hired girl that I saw; was there from one-half to an hour; plaintiff was there when I got there; before they moved from Canada I went in and found Mrs. Ostram washing dishes; she used her left hand on that occasion; she did other light work about the house, such as she could do; they lived on farm three or four weeks, after injury, without a servant.

Cross-examined.—Plaintiff carried on farm at Fort Erie; Colburn was with him; he had help occasionally.

Peter Tertius Kempson sworn, testified: I am defendant in this action; reside at Fort Erie; am physician and surgeon; was called upon by plaintiff to attend his wife for injuries to arm; I went; when I got there I found Mrs. Ostram in bed, examined arm, found it displaced, and a fracture of lower end of radius; as near as I recollect I used extension and counter-extension, and having brought parts in position I proceeded to swathe wrist and laid on cloths wet in warm water, while preparing splints and bandages; after all was ready placed arm in position—placed it on a padded splint, and another on the top; I then bandaged the arm up nearly to elbow; I directed patient to use a sling and to keep arm in it; I allowed her to rest arm on pillow that night; think I placed pillow for her and left it; I gave directions to lay rags wet with warm water over arm; I had no doubt about injury at that time; I next saw arm on following morning; I inspected dressing and arm; found everything was regular and straight, as far as I could then discover; I saw it next morning; all right then; I went as often as I thought necessary—not as often as I should but they seemed afraid of expense; I was over-confident I reduced it as well as it could be reduced; before this I had experience, some in Canada, and prior in England, from whence I came to Canada; my experience in England had been considerable in these fractures; I dressed this arm on a straight splint; I did not tell

them—the plaintiff or his family—that this was a sprain or dislocation of the wrist; I gave them as hopeful an account as I could; I did not assure them a perfect arm; I state this positiveiy; I told them she would be able to use arm in six or eight weeks; I think I removed the top splint in five or six weeks; can't tell who was there; think Mrs. Forsyth was; the arm was then going on quite as well as I expected; the arm was then in its natural position, except the ulna, which projected; she had then no use of arm; I did not allow it; the arm was stiffened, but she had some use of her fingers; took off bottom splint soon after; the permanent splints were removed at end of six weeks; there was then a perfect state of arm except a little deformity, but had this stiffness; can't tell if I left it in bandage; recommended lotion and embrocation to overcome stiffness; the last time I saw him was February 17, 1863; the condition of the arm was then much as when I left it before; the ulna did not project as it does now, and there was no deformity.

Cross-examined.—I came to Fort Erie April 7, 1854; did not put out sign until four or five years after; I practiced when called on; did not practice generally; I farmed some; I remember two cases of fracture of radius besides this; these cases were both in young persons, not like Mrs. Ostram; one was a child of Mr. Rose, the other a child of Mr. Kirtz; I lived at Brierly Hill in England; Mrs. Forsyth assisted in dressing the arm.

The defendant rested his case.

The case was then submitted to the jury by the counsel for the respective parties, and thereupon the Court charged the jury substantially as follows:

Gentlemen of the Jury:—I shall consume but a short time in submitting this case to you. I shall generalize it, and leave it with you to pass upon. In November or December, 1863, the wife of plaintiff fell and fractured the radial bone near the articulation of the hand. There is no dispute as to the injury, nor in respect to the present condition of the wrist. The evidence is that the radius is some shorter than the ulna. Injury and treatment have resulted in deformity with stiffness of fingers. Dr. Miner says, it is hardly probable that it will entirely recover. The theory of the plaintiff is, and here is the point of departure between the coun-

sel, that the defendant said at the time of injury, that the arm was out of joint, and the plaintiff claims the defendant did not suspect fracture, and therefore did not reduce it. Defendant says he did treat it as a fracture, and that he reduced and put it in place. There is no dispute about the manner of dressing arms, but plaintiff claims defendant's treatment was not proper, and calls Drs. Hill and Dayton, who say they use crooked splints which produce best results; that the reason is, by curved splint you get strain on radial muscles—you get tension on muscles that hold hand in place.

The defense says the curved splint is good, but that it is not improper to use straight splints, and that as good results are produced by them as by crooked splints. The evidence of defendant's witnesses is, that present condition of arm is result of injury, and not of treatment. If you rely upon the testimony of defendant's witnesses your verdict should be for the defendant. If you rely on the evidence of the plaintiff's witnesses then your verdict should be for plaintiff, and you will then consider what damages he should recover. All you can give is for plaintiff's pecuniary loss up to present time on account of the loss of service of his wife in consequence of improper treatment by the defendant, if you find his treatment was improper, and you will not take into account the injury either to feelings or person.

The jury rendered a verdict for plaintiff for $50. A stay of proceedings was granted by the Court, and the case will be carried up for review.

Perry G. Parker and Charles J. Thomas for plaintiff.

W. W. Mann and George W. Cothran for defendant.

Commencement Exercises in the Buffalo Medical College.

VALEDICTORY ADDRESS.

In our last issue, we had space only to publish the names of the graduating class, but could make no mention of the Address of Bishop Cox, which was appropriate for the occasion, as much so at leas as could have been expected of an unwritten speech. It was rendered highly entertaining to the large, popular audience by the natural grace and easy manner of the distinguished speaker. He seemed, however, himself more than any other, to feel the

impossibility in a member of another profession, breathing a spirit and gaining an inspiration indispensable to eminently meeting the just expectations of young men commencing one of the most responsible callings, whose duties and wants could only be appreciated by a physician who had himself become familiar not only with its pleasures and joys, but with its wants and woes.

At the request of some of the graduating class, we publish entire the Valedictory Address by Eugene N. B. Smith, M. D., member of the class.

Fellow Classmates:

The time has come when the bonds which have united us as students must be forever sundered. We receive this evening at the hands of our honored teachers the evidences of our attainments, and pause a moment on the eve of final separation, to bid them, and each other, farewell.

Henceforth we begin a new life; *not* of rest from our toils and struggles, but of more earnest and untiring effort; clothed with new duties and responsibilities, we receive into our keeping the most sacred trusts. As members of a learned profession, into whose ranks we have been admitted, we would thus early pledge our devotion to its interests and honor.

The past few years of study have shown us, even though at our professional birth-day, that the broad field of medical knowledge is not yet wholly explored; that there are new truths to be discovered and new principles to be established; that what is old is not always true, that much of what is new may prove to be false. To separate truth from error, adopting the one and rectifying the other, will require our undivided effort, should be the governing purpose of our professional lives.

Error in medicine appears to be more readily adopted than in the other professions, and to hold a sort of sway over the popular mind which it is difficult to explain. It is not readily apparent why the pretender, who knows nothing of the nature of disease, has never studied anatomy, physiology, chemistry, materia medica, therapeutics, or anything else, and often times can scarcely read, should be invited into refined circles to vend his ignorant absurdities. It is not explainable, that the educated, intelligent, honest, upright, reliable physician, should be passed by, or in any way

compared with the mountebank and charlatan, who represents the wonderful properties of some inert and useless compound, or some invisible, inconceivable, imponderable, infinitesimal. You and I must endeavor to know the truth and follow its teachings, uninfluenced by that popular tide of error, which ebbs and flows, rises and falls, like the *ignis fatuus*, only to blind and deceive. This evening we take the oath of allegiance to our profession, promising to be true to its rule, faithful to its honor, unwavering in our devotion to its high mission of "love and good will to men."

To the University which has bestowed upon us its seal of approbation, and given its diploma in evidence of this approval, we offer assurances of fidelity to the trusts imposed upon us, and resolve by every effort for scientific attainment, and by pure and gentlemanly life, to reflect honor upon the institution which has honored us.

To the community, upon whose kind considerations and favors we look with trust and hope, we offer an unselfish and pure effort for their highest earthly interests. When life itself is entrusted to our knowledge and skill, may we be found worthy the high trust.

To each other, as classmates and friends, we extend a mutual regard, a pure professional life, a constant devotion to the science and practice of our profession, and an earnest and untiring effort for the perfection of our art. We see in our profession a long list of honored and distinguished names; men so wise and good that we would emulate their virtues and follow in their footsteps; but we all have aspirations for higher and yet *higher* attainments. We almost bow down in reverence before some of the distinguished discoverers in our art, yet it has never appeared to us that there are not new truths to be discovered, and new principles to be established; it has never appeared that the field of professional research, had grown smaller or less productive of new fruits. The world is before us, and all of professional honor we may attain. With us, the race for discovery in science; and upon *our* industry and perseverance depends the results. No human eye penetrates into the mysterious future, wisely shut out from mortal vision; histories, all unwritten, are contained in its unopened volumes; pages will daily open upon which you and I may write, *must* write, our own records.

In behalf of my classmates and myself, I offer to you, the officers and teachers of the University of Buffalo, sincere and heartfelt thanks for the favors we have received at your hands. You have ably and faithfully instructed us in the fundamental branches of our profession, and portrayed to us, clearly and plainly, the principles upon which our art depends. To your faithfulness and fidelity, we are indebted for much of what we have attained; and to your teaching and example we shall ever turn our eyes, and take fresh courage; in the times of doubt which try our souls, we shall turn back the page of memory, and read therefrom the principles learned from your instruction, and be guided by this light. As we tremblingly let go the hand which has long supported and guided us, so we reluctantly and hesitatingly relinquish our connection with you, and our *alma mater*, and bid you an earnest and affectionate, farewell.

Fellow Classmates:—Disunited from our teachers, and from each other, we must now meet the duties and bear the responsibilities of life. In distant and widely separated homes, we shall soon scatter, never again to be united, except by that endearing bond of brotherhood which shall not be weakened by time or space, but shall grow a stronger and yet stronger cord of attachment. Hoping that if we meet no more, we may so conduct our steps through life, as to renew our companionships in a better world, I bid you good bye, and *farewell.*

Books Reviewed.

Circular No. 6, War Department, Surgeon General's Office, Washington, D. C., November 1, 1865. Reports on the Extent and Nature of the materials available for the preparation of a Medical and Surgical History of the Rebellion. Printed for the Surgeon General's Office, by J. R. Lippincott & Co. Philadelphia; 1865.

This Report comprises two communications to the Surgeon General. The first, relating to the surgical department, was prepared by George A. Otis, Brevet Lieut. Col. and Surgeon U. S. Vols.; and the second, under the direction of J. J. Woodward, Ass't Surgeon and Brevet Major U. S. A., relating to the medical department.

"The material relating to the surgery consists of reports from the various medical officers, and of illustrations of pathological specimens, drawings and models." The extent of the material available is, in the words of Dr. Otis, "*simply enormous*," and although the time has not yet arrived when we can, with any accuracy, determine the number of wounded, yet from the reports of about one-half of the regiments, their numbers amounted to 187,470, while the number of wounded of the French and English armies in the Crimean war amounted to 51,962. Again, in comparing the cases of some of the major operations, "as the excision of the head of the humerus," with the Crimean returns, we find 16 of these excisions reported in the English, 38 in the French, and 575 in our own army.

In the earlier part of the war an army medical museum was established, and the medical staff was invited to forward preparations to it. So general was the response, that in January, 1862, a numerical list of 1248 surgical and pathological specimens was published. These contributions steadily increased, so that the museum has now already 5480 surgical specimens in its possession, not only of recent injuries, but of illustrations of reparative processes after injuries and morbid process, so that numerically, at least, this institution is richer than either those of France or England. Furthermore, some artists and a colorist were connected with the museum, to prepare preparations of surgical pathology and representations of remarkable injuries, and of lesions of the viscera in different diseases. Subsequently, a photograph gallery was also established, and the museum is now in possession of 1000 photographic representations of wounded and mutilated men.

The defects of the old monthly blanks of "sick and wounded," was felt very early, and a new form was determined upon, by which the regional classification of wounds was carried out to a far greater perfection, thus enhancing the value of the statistics very much. The recorded gun-shot wounds of the head are 5046, which have been divided into two classes; first, gun-shot fractures of the cranium and contusions of the skull, resulting in lesions of the encephelon; and secondly, simple contusions and flesh wounds of the skull. Under the first class 1104 cases were recorded. In 107 of these the trephine was employed, the result being 60 deaths and 47

recoveries. In 114 cases foreign substances and speculi of bone were removed by the elevator without the use of the trephine; of these 61 died and 53 recovered. The foregoing figures give us a ratio of 43.3 per cent., while in 483 cases treated by expectancy, the ratio of recovery being only 20.5 per cent. Yet the favorable result which has been exhibited in cases in which operative procedure was instituted will be greatly modified when the results of that great proportion of the field operations of trephining shall have been ascertained. Of 22 specimens of gun-shot contusions at the army medical museum, either "necrosis has taken place, with exfoliation of the external table only, or of the entire thickness of the bone, or else inflammatory suppuration occurred in the deploe or between the skull and the dura mater."

The result of 1272 penetrating gun-shot wounds of the chest have been ascertained, of these 930 proved fatal, or 73 per cent. The antiphlogistic treatment in this class of wounds appears to have been almost entirely abandoned. The hæmorrhage was treated by cold applications, and the pain allayed by the administration of opium in some form. In no instance was the operation of paracentisis deemed necessary for the evacuation of effusions of blood, and the practice of "hermetically sealing" wounds of this character, have been found entirely unwarrantable by the results obtained.

The recoveries from penetrating gun-shot wounds of the abdomen was 26 per cent., and although this percentage is unexpectedly large, yet only such cases are reported in which the diagnosis was beyond a doubt. In many instances fæcal fistula were produced which would however after some lapse of time close without operative procedure. Gun-shot injuries of the illeum and of jejunum proved far more fatal than those of the large intestines. In none of the cases reported was it deemed advisable to apply a ligature to the intestine. Of 32 recorded cases of wounds of the liver only four terminated favorably. These wounds were usually followed by large extravacations into the abdominal cavity, giving rise to rapidly fatal peritonitis. But few cases of recovery are reported after protrusion of the abdominal viscera. "In two cases in which loops of small intestine protruded from the wound, they were immediately returned and retained by adhesive straps

and bandages, the patients recovering with ventral hernia." The cases of gun-shot wounds of the bladder have all proved fatal, excepting those in which the injury was of that part of the viscus uncovered by peritoneum.

We regret that space does not permit us to lay any more extracts from these statistics before our readers, and before concluding will hastily notice the second part of the report.

The medical department under the direction of Dr. J. J. Woodward, furnishes us with numerous interesting facts upon hospital organizations and upon the nature of diseases of armies. From his report it appears that during the war 202 general hospitals were in operation at one time with an accommodation for 136,804 patients. During the first year of the war the average strength of our army present was 281,177 men, and the average strength constantly present in hospitals was 9,759, making the total strength of the army 290,936 men, among which 14,183 deaths from disease occurred. This number of deaths, large as it is, does not represent the actual rate of mortality, as the reports for the first year were very incomplete. The mean strength present for duty for the second year was 598,821 men, with an average attendance in hospital of 45,687, making the total strength of the army 644,508, the rate of mortality from disease being 42,000 men. The mortality rates for the last half of the war have not been as yet completed, but it is believed that the proportionate rate of deaths will be less than for the first half.

From the foregoing figures the mortality of our armies from disease for the first half of the war appears to be 55.45 per 1000 mean strength, while the mortality of our troops in the Mexican war was 103.5 per 1000, and that of the English and French armies in the Crimea being respectively 232 and 300 per 1000 mean strength. Dr. J. J. Woodward ascribes this favorable result as a consequence of the liberality of the commissary and medical supplies, the careful exclusion of men unfit for military life, and the superior hygienic advantages of the greater part of the general hospitals.

The medical staff which served in the late war was composed "of a Surgeon General, one Assistant Surgeon General, a Medical Inspector General, 16 Medical Inspectors, 170 Surgeons and

Assistant Surgeons of the regular army, 362 volunteer Staff Surgeons and Assistant Surgeons, 3000 regimental Surgeons and Assistant Surgeons of Volunteers, 2500 Acting Assistant Surgeons or Physicians serving under contract, and 6 Medical Store-keepers."

We have laid before our readers a brief synopsis of the treasures contained in the Surgeon General's office, and we shall look forward to the volumes on the surgical and on the medical history of the war, soon to be published, with the greatest interest.

On Wakefulness, with an Introductory Lecture on the Philosophy of Sleep. By William A. Hammond, M. D., etc.

This work has previously been received essentially in its present style, but in pamphlet form, and was then noticed. We now offer our thanks to the publishers for favoring us with it, in the present elegant and permanent form. We can favor our readers with one quotation only upon the treatment of wakefulness:

"Among the more purely medicinal agents, *bromide of potassium* occupies the first place, and can almost always be used with advantage to diminish the amount of blood in the brain, and to allay any excitement of the nervous system that may be present in the sthenic form of insomnia. That the first named of these effects follows its use, I have recently ascertained by experiments upon living animals, the details of which will be given at another time. Suffice it now to say, that I have administered it to dogs whose brains had been exposed to view by trephining the skull, and that I have invariably found it to lessen the quantity of blood circulating within the cranium, and to produce a shrinking of the brain from this cause. Moreover, we have only to observe its effects upon the human subject to be convinced that this is one of the most important results of its employment. The flushed face, the throbbing of the carotids and temporals, the suffusion of the eyes, the feeling of fullness in the head, all disappear as if by magic under its use. It may be given in doses of from ten to thirty grains—the latter quantity is seldom required, but may be taken with perfect safety in severe cases."

Books and Pamphlets Received.

A Practical Treatise on Urinary and Renal Diseases, including Urinary Deposits, illustrated by numerons cases and engravings. By William Roberts, M. D. Philadelphia: Henry C. Lea, 1866.

Bailliere's American and European Literary Bulletin. Bailliere Brothers, Booksellers and importers, 520 Broadway, New York.

Hygienic Experience in New Orleans during the War, illustrating the importance of efficient sanitary regulations.

Catalogue of the Officers and Students of the University of Michigan, with a statement of the courses of instruction in the various departments—1866.

An nual Report of the Surgeon General United States Army, 1865.

An Essay on the Law of Muscular Action. By Louis Mackall, M. D. Second edition, corrected and revised, 1865.

An Essay on the Life in Nature, by Louis Mackall, M. D., author of "Notes on Carpenter's Human Physiology," etc.

Extract from an unpublished Essay on Physical Force. By Louis Mackall, M. D.

A Communication from the City Physician on Asiatic Cholera. Is it a contagious disease? Boston, 1866.

A Sermon on occasion of the death of Thomas W. Blatchford, M. D., delivered in the Second Street Presbyterian Church, Troy. By D. Kennedy, D. D.

Memorial on the late Thomas W. Blatchford, M. D., read at a meeting of the Governors of the Marshall Infirmary, Troy, N. Y., January 29, 1866. By James Thorn, M. D.

Reception of Pathological Specimens.—We have received some valuable additions to our "pathological collection" within the last few weeks, and desire to express our hearthy thanks for these favors. Dr. Charles L. Dayton, North Buffalo, has sent us a specimen of the "Taenia," the patient from whom it was obtained, coming up from New York city to receive his treatment. Dr. Merrill H. Shaw has also presented us with a fœtus, born at full time, with *extroverted brain*, the cerebral mass laying over the dorsal region below the neck, or below where the neck should be. It is not covered by skull or integuments, but contained in the membranes proper to the brain. Dr. W. McCarjow, of Caledonia, C. W., has sent a very interesting and instructive specimen of disease of the joint, and also a photograph taken before amputation. We cannot sufficiently express our indebtedness to our professional friends who thus favor us. Our private pathological collection, has grown recently with encouraging and gratifying rapidity, under the generous patronage of friends.

New Medical Journals.—We welcome to our exchange list the following medical journals, all of which are ably conducted, instructive and valuable medical periodicals: Atlanta Medical and

Surgical Journal, Detroit Review, St. Louis Medical Reporter, Galveston Medical Journal.

We have received, also, prospectus of Southern Journal of the Medical Sciences, to be published in New Orleans, to contain 200 pages per number, and to be issued quarterly.

We are gratified at these evidences of returning prosperity in the profession at the South, and hope that from restored peace and union, may spring all the blessings which flow from wise and beneficent government, prosperous agriculture, extensive commerce, and faithfully cultivated science.

A Substitute for Human Milk.

We have received a sample of an article prepared under the personal supervision of W. H. Peabody, chemist and pharmaceutist, assisted by Prof. George Hadley, designed to be a substitute for the natural food of infants. It is prepared in such manner as to add to the milk of the cow the chemical elements and properties of human milk, and thus to furnish food for infants similar in taste, appearance and chemical composition to healthy human breast milk. This article has borne the test of trial, and we have the testimony of many of our most experienced and discriminating physicians, that it agrees in most cases with infants much better than any other article yet introduced to supply the place of breast milk. Some of these physicians have not only prescribed it to patients, but have also used it in their own families, and speak of it in terms of unqualified approval.

In all animals belonging to the great class of *mammals* the sole nourishment of the young is milk, which contains in itself three classes of elements whose simultaneous use is essential to nutrition, viz: the mineral, the oleaginous and sacherine, and the albuminous. Different animals, however, require these, to be supplied in different proportions, and as one grown up animal lives on one kind of food, and another on a very different, so the milk supplied to the young varies much in the relative proportions of its three great constituents. For example: human milk contains more of the second and less of the third class of elements than the milk of the cow; it is also more bluish, has a sweeter taste, turns sour less readily, and forms a gelatinous curd which is not so dense as that of the the cow's milk, and which is more easily digested. The elements necessary to convert cow's milk into human milk, so far as chemical composition is concerned, has no doubt been very perfectly supplied in this compound prepared by Mr. Peabody, Prof. Hadley's approval being sufficient guarantee of its genuineness and chemical purity. Its practical value is already established with those who have made trial of its virtues, and it will be presented to the public, through the profession, with confidence that it will answer every reasonable expectation.

BUFFALO
Medical and Surgical Journal.

VOL. V. MAY, 1866. No. 10.

ART. I.—*Gun-shot wound, with removal of rim of acetabulum and dislocation of femur—Recovery.* By J. F. Miner, M. D.

The following remarkable and interesting case of recovery after gun shot wound involving the hip-joint is so rare, and in result so unusual, that an account of it may be interesting and valuable as an additional case of recovery among the rare ones which have been observed by military surgeons. Perhaps the whole surgical history of the Rebellion will not furnish a parallel.

Lieut. Col. James Strong of the 38th N. Y. V., now Brigadier General of the Veteran Reserve Corps, was wounded May 5th, 1862, at the battle of Williamsburg, Va. The ball entered a little below the anterior superior spinous process of the illium, and made its exit near the outer margin of the sacrum. The ball passed deeply, and fractured in its course the rim of the acetabulum, which was removed an inch and a half in length and of a diameter sufficient to show that the whole upper rim had been carried away.—This fragment of bone was removed from the wound at the dressings made while in the hospital, where he was carried after having lain on the field for some hours. Surgeon A. J. Berry first dressed the wound and removed fragments of bone and portions of pants and drawers. The wound was very large, and a thorough examination could be made by the easy passage of the finger. After a stay in military hospital of eight days, he was placed on board ship and taken on his way home by his brother and assistants, coming the whole distance upon a stretcher made for the purpose, and suffering the greatest pain from every motion of the boat or car. By force of great resolution and courage his home in Buffalo,

situated upon the bank of the Niagara, was reached after a painful journey of five days. The belief that recovery would be impossible in a military hospital or even in a warm climate, under most favorable circumstances, prompted an undertaking which could never have been made from less urgent inducements. On his arrival the wound presented a healthy appearance, and the constitutional disturbance was slight, considering the nature of the injury. The leg was partly flexed upon the thigh, and the thigh upon the body, the whole drawn internally to considerable extent. In this position it was fixed; it could not be moved in the slightest degree without producing pain, which was absolutely unindurable. The constitutional disturbance at length became very great, and the question of life rather than position of the leg engrossed all attention. Fragments of clothing and speculæ of bone were at various times extracted or washed from the wound, while great quantities of pus constantly issued. Chills, profuse perspiration, rapid pulse, great prostration, with total loss of appetite, make up the main features of the case, the severe and continual pain overshadowing and covering all other symptoms—pain which it was impossible to allay. In this condition of extreme distress and uncertainty of life he continued without great change for about eight or ten weeks, when he gradually and very slowly commenced to improve, both in his general condition and in the appearance of the wound, until after a few weeks more he could be moved from one side of the bed to the other, and his comfort promoted by change of position.

When at length it became apparent that his recovery was probable, the question of the condition of the leg was again agitated, and efforts were early made to extend it, and obtain motion in the knee-joint. Extension and counter-extension under the influence of chloroform was adopted, and persevering efforts made to obtain as favorable results as possible. Nothing, however, can be said to have been gained by these efforts other than to have obtained greater motion in the knee-joint, the hip being made neither better or worse. Abscesses occasionally formed in the site of the old wound, and continued to do so for eighteen months or two years, each time inducing great constitutional disturbance, sometimes so great as to excite fears of his life.

The General has been on duty for the last two years, and for most of the time has enjoyed a comfortable degree of health. The present condition of the thigh will complete the main features of a case, which, to avoid being tedious, has been recited more in aggregate than in detail.

The thigh is shortened three and a half inches; the head of the femur rests upon the illium above the acetabulum, and a complete and bony anchylosis exists; the knee is drawn inwards and the joint has good motion. The weight of the body can be borne upon that leg with comfort, and the twisting of the pelvis and the extension of the toes compensates for the shortening and stiffening in a wonderful degree, so that he walks with, or without a cane, with but slight disability, considering the severity of the injury and the unnatural condition of the articulation.

The gravity of gun-shot wounds involving the larger joints has been observed by physicians, both civil and military; the danger from such wounds varying with the extent of injury, the destruction of the tissues, size and kind of joint, and state of health and circumstances of case after injury. It was formerly supposed that injury admitting air to the synovial structures was very dangerous, but this view is not now so universally adopted, and probably the air thus admitted is not of itself so important. Such injury of the small joints are not very dangerous, but of 65 cases of gun-shot wounds of different joints related by Alcock, 33 only recovered, 21 of these with loss of limb, leaving only 12 recoveries without amputation out of the 65 cases. Gun-shot wounds involving the hip-joint have always been regarded as fatal, and very few cases can be cited as exceptions to this general rule. Gun-shot wounds of all large joints are dangerous to life and limb, especially so when the articular extremities of bones are involved in injury; the knee-joint is scarcely less important in results of injury than the thigh, and the most experienced military surgeons have not seen a case of recovery without amputation, when attended with severe injury of the bones.

A gun-shot wound such as related, carrying away the rim of the acetabulum and allowing the muscular contraction to dislocate the femur, drawing the head upwards and backwards, must be a very severe and dangerous injury. If such cases have occurred they

have more generally died from either shock, hemorrhage, or inflammatory action and traumatic fever, within a few days — have rarely continued under observation long enough to accurately determine their nature, or the results of imperfect recovery. That gun-shot wound of the head of the femur would be more serious than of the rim of the acetabulum is not improbable, but recovery from either is sufficiently infrequent to make every case which does occur, of the greatest importance in determining probable results of similar injuries.

ART. II.—*Abstract of Proceedings of Buffalo Medical Association.*

TUESDAY EVENING, March 5th, 1866.

The Association was called to order at 7½ o'clock by the President. Present—Drs. Ring, Gay, Cronyn, Strong, Eastman, Samo, Wetmore, Gleason, Little, Gould, Congar, Boardman and Johnson.

DR. JOHNSON moved that Dr. Abbott be invited to attend the meetings of this Association until he becomes eligible to membership. Carried.

DR. EASTMAN made a like motion in favor of Dr. H. S. Tafft, which was carried.

The minutes of the last meeting were read and adopted.

Voluntary communications being in order—

DR. GAY reported a case of diphtheria of unusual severity. The patient was a robust man of 26 years. On the first day of the disease all the usual general symptoms of the disease were present with no local disturbance until the second day, when he found a thick, firm exudate, complicated with abscess of the tonsil. The exudate came off and re-formed, dipping down into the larynx, making deglutition very difficult; most of the food consisting entirely of fluid, was returned through the nares. The abscess opened spontaneously, and healed two or three days after.

Treatment consisted of sol. subsulphate ferri xx, minims aqua mentha, syp. simplex āā ℥ss, in teaspoonful doses every 2 hours. Gave also chlorate potassa in sat. sol. Gave neither whisky or quinine. Believe the good results in this case due to the sol. subsulph. ferri, and that the remedies of greatest value in such cases are, first, the aqueous vapor; second, subsulphate ferri.

Dr. Strong remarked, that we are too apt to attribute the good effects of alcoholic stimulants to systemic affects. He believes that the local effects of alcoholic stimulants are valuable in diphtheria. Dr. S. related the case of a patient with diphtheria with but a small amount of exudate and constitutional symptoms well marked; pursued his usual plan of treatment until the fourth day, when he applied four leeches over the larynx with excellent effect, the patient convalescing rapidly. He also said that his experience had taught him that local depletion, and at the same time stimulants should be resorted to in many cases of inflammatory disease.

Dr. Eastman had not used sol. subsulph. ferri in diphtheria. Believes that aqueous vapor in many cases a very useful remedy. He related a case in which there was total loss of voice, used aqueous vapor and made application of ice over the larynx for twelve consecutive hours, when the patient was much better and recovered rapidly. Had also recently seen a case treated by another practitioner in which the patient seemed convalescing favorably, when edema of the glottis supervened, and death occurred in about ten minutes from the commencement of the edema.

Dr. Wetmore remarked that he employs the vapor from a saturated sol. of carbonate of soda, and thinks it superior to aqueous vapor. Often paints the membrane with this solution, and sometimes uses carb. soda in fine powder, directing the patient to inhale it. Has often seen neuralgia follow diphtheria, but thinks paralysis follows it very infrequently. Should hardly know how to treat diphtheria without iron, quinine and whisky.

Dr. Strong spoke favorably of aqueous vapor in croup, but remarked that he believed true croup almost always fatal.

Dr. Boardman reported a case of pleuro-pneumonia in a robust man, with pulse at 120, and short, painful respiration and slight cough and severe headache. Gave $\frac{1}{4}$ gr. morphia by hypodermic injection, and $\frac{1}{2}$ gr. morphia four hours after in conjunction with mustard poultice. Slept quite well through the night. In the morning found the pulse 100, and much less pain; headache gone. Treatment continued through the day. Sputa rusty and heavy. Next day found pulse 86; sputa lighter, but little pain; frebrile excitement nearly ceased. Patient convalesced rapidly. Believe the subcutaneous injection of the morphia very useful in this case.

Dr. Eastman said that the case related by Dr. Boardman was very interesting, and that the hypodermic use of morphia is many times very advantageous, and thinks its use in this manner will be of great value in the treatment of cholera and kindred affections.

Dr. Cronyn remarked that he had used morphia hypodermically in cholera with the best results. Dr. C. believes it the almost universal opinion that paralysis follows diphtheria. Has no faith in local treatment of this disease.

Dr. Boardman had found the hypodermic injection of morphia very useful in cholera-morbus. Had employed it in this manner in cases where nothing could be retained in the stomach, purging very violent. Soon after injection purging ceased. Gave small doses hyd. chl. mite, and the vomiting was also arrested. Thinks he should have lost the patient but for the injection.

Dr. Cronyn stated that in the case of the bullet-wound reported by him at a former meeting, the bullet is still in the boy's head. The boy is doing quite well. The right side of the face and the right leg is paralyzed. The right arm is atrophied.

Dr. Wetmore said, diphtheria is a general disease, sometimes with local disturbance and sometimes not. Sometimes with much exudation, or may be with much ulceration. If the exudation is taken off early its formation in the larynx is prevented.

Dr. Cronyn said that many more cases of diphtheria are reported than ever exist. The removal of the exudate will be of no more advantage than the removal of the skin. The disease is ameliorated only by such remedies as tend to eliminate the poison from the system. If the exudate will immediately re-form, of what use is it to remove it?

Report on prevailing diseases being in order, pneumonia, effemora, diarrhœa, variola and erysipelas were reported as prevailing. Adjourned.

T. M. Johnson, Sec'y.

Annual Meeting, April 3d, 1866.

The Association was called to order at the usual hour by the President. Present—Drs. Lockwood, Ring, Samo, Gay, Wetmore, Trowbridge, Little, Cronyn, Tafft and Johnson.

The report of the last meeting was read and approved.

Dr. Cronyn presented to the Association George Beam, of Fort Erie, C. W., aged 14 years, who was five months ago accidentally shot with a pistol. The ball penetrated the frontal bone a line or two above the left supra-orbital ridge, and passed horizontally into the skull to the distance of about four inches. His right arm and leg are gradually recovering from the paralysis, and he seems likely to recover entirely.

The annual report of the treasurer was read and referred to the board of auditors.

On motion of Dr. Gay the subscription of Dr. J. S. Trowbridge was canceled.

Election of officers being in order the following gentlemen were elected for the ensuing year:

President, - -	Dr. William Gould.
Vice President, - -	" J. S. Trowbridge.
Secretary, - -	" T. M. Johnson.
Treasurer, - - -	" T. T. Lockwood.
Librarian, - -	" J. B. Samo.

On motion of Dr. Trowbidge, the Society was requested to tender the use of the rooms of the Association, to the American Society for the Advancement of Science, during the meeting of that Society in August next.

Dr. Lockwood presented a specimen of the bark and also the root of the indigenous black ash, and would call the attention of the Association to the subject of our indiginous materia medica. He stated that the bark should be procured when it contains the sap. It may be given in decoction or extract, and is a valuable stimulant, tonic and antiperiodic. It is quite extensively used in the country as a vermifuge. Dr. L. has used it quite extensively in intermittent fever with good results, and thinks it very efficient after the paroxysms have been controlled by quinine.

Dr. Wetmore moved that Drs. A. Kaffenburgh and Thomas Lothrop be invited to seats in the Association until they can complete their membership. Carried. Adjourned.

T. M. Johnson, Sec'y.

Action taken by Physicians in Buffalo in view of the probable appearance of Cholera.

Pursuant to a resolution of the Buffalo Medical Association passed at the regular meeting of February 6th, a meeting of the regular profession of the city and vicinity was held at the rooms of the Buffalo Medical Association on the 13th of February, and Dr. Josiah Barnes was elected Chairman of the meeting, and Dr. T. M. Johnson elected Secretary.

Dr. Rochester stated that the object of the meeting was to consult together upon the best means for the protection of our citizens in case cholera should prevail here during the ensuing summer. He read a circular from the Board of Hygiene and Public Health of New York City, recommending that such action be taken by the physicians of Buffalo as will result in immediate and efficient sanitary measures.

On motion of Dr. Rochester the Chairman was directed to appoint a committee of five physicians to wait on the Mayor and Board of Health and tender coöperation with them in devising and carrying out such sanitary measures as may seem advisable.

After considerable discussion, in which there was general participation, the motion was carried. The Chairman appointed Drs. Rochester, Gay, J. R. Lothrop, Wyckoff and Haunstein, said Committee.

On motion of Dr. C. W. Harvey the Committee was directed to take such course as was necessary to fully carry out the desired objects and report at an early day.

In obedience to this motion the Committee have issued to the Board of Health, and to the citizens the following

CIRCULAR.

Inasmuch as cholera will probably visit this city, and as much may be done to prevent or mitigate its prevalence, the following is issued for the information of our citizens, and to disarm them of groundless and unnecessary fear:

There is no epidemic of equal severity, so entirely under judicious hygienic control. This refers to cleanliness of person and premises, the avoidance of crowded and ill-ventilated apartments, and especially to the avoidance of excesses in eating and drinking. Cholera is always more prevalent in warm and moist than in warm

and dry weather. There is an affinity between it and dampness; hence nothing is more prejudicial than watering floors, walks or streets at nightfall, under the mistaken idea that by thus cooling the ground, a more healthful atmosphere is secured. Cholera is almost invariably preceded by diarrhœa from one to four days. This is, in fact, its first and *curable* stage, but because the diarrhœa is usually painless, it is neglected or trifled with. No one, with even a very slight diarrhœa, (cholera prevailing) should attempt to pursue his ordinary avocations. He should go to bed, or at least maintain a recumbent position, should be covered up warm, and should take no food, or but little, and that very light and digestible. Should the diarrhœa continue, he should *at once* consult his physician.

Nearly every one may have, through his medical adviser, some simple preparation which will check or arrest the diarrhœa until the physician's personal attendance can be secured. Nostrums, either to cure or to prevent should not be taken. Cathartics of every description should be avoided. If cholera is communicable, it is probably so through the stools, hence all evacuations of diarrhœa or cholera should be at once removed from within doors, and privies and water-closets should be kept sedulously clean and covered. A cheap and effectual disinfectant is found in copperas, (sulphate of iron.) Of this, one pound dissolved in a large pail of water, may be emptied occasionally in out-houses, drains and cesspools. No dirty water should be allowed to stand in tubs or slop-pails; nor, if possible, in streets or gutters. No excavation of soil should be made, and no privies, drains, or old dirt-heaps should be disturbed in warm weather. All this should be done prior to May. Many persons, in cholera epidemics, use ardent spirits more or less freely as a supposed preventive. This is a great error. Drunkards and intemperate persons are much more apt to be attacked than those of contrary habits. It has always been observed, that independently of the influence of atmospheric conditions, cholera has notably been more prevalent on Sunday nights and on Mondays than on any other nights and days of the week. This is undoubtedly rightly ascribed to the intemperance and dissipation in which many are in the habit of indulging on Sundays.

Another error into which many are apt to fall is, to place themselves upon a restricted diet. This is believed to be, not only unnecessary, but injudicious. Plain, substantial, well-cooked meals, in which fresh animal and vegetable food both enter, are better than a dietary of bread, rice and salted meats. Fresh and ripe fruits and vegetables in their season, are healthful, but the same when crude, wilted, or fermented, are at all times pernicious.

The above statement, it is believed, covers the material points pertaining to the prevention and mitigation of epidemic cholera, and is respectfully submitted.

THOS. F. ROCHESTER,
C. C. F. GAY,
JOHN HAUNSTEIN,
C. C. WYCKOFF,
J. R. LOTHROP.

To the Board of Health of the City of Buffalo:

It is respectfully suggested to your honorable body, that, in order to increase the efficiency of your sanitary measures, that the city be divided into districts, and that ten Medical Inspectors be appointed—one for each district—who, in case of the approach or invasion of cholera, shall engage and be ready to serve, subject to your orders.

It shall be the duty of these Inspectors, to make house to house visitations, examine the premises thoroughly, and give such hygienic and special directions as may be necessary, prescribing and furnishing medicine *gratuitously* in cases of destitution and urgency.

It shall be their duty to devote at least five hours daily to this work, and to report in writing to the Board of Health daily, the extent and result of their investigations.

Each Medical Inspector shall receive five dollars per diem for such period as the Board of Health shall direct them to continue their labors.

THOS. F. ROCHESTER,
C. C. F. GAY,
JOHN HAUNSTEIN,
C. C. WYCKOFF,
J. R. LOTHROP.

Miscellaneous.

On the best Method of Detecting small quantities of Albumen in the Urine.

By Dr. Andrew Clark, Assistant Physician to the London Hospital.

It is of great clinical importance to possess a simple and certain method of detecting small quantities of albumen in the urine. After a great variety of experiments, I have come to the conclusion that nitric acid used in the manner about to be described—a modification of the plan suggested by Heller—is by far the most sensitive, reliable and handy agent that can be used for this purpose by the physician.

Pour not less than half a drachm of *fuming* nitric acid into a test tube; incline it, and then let a like quantity of the suspected urine trickle down *very slowly* to the acid, over the surface of which the urine will float without the slightest admixture. If albumen be present, a milk-white, sharply-defined, tolerably tenacious film will form at the exact point of junction of the two fluids. This film is never, at first, thick; and when the amount of albumen in the urine is extremely minute, it may be so thin as to become visible only by reflected light when the test tube is inclined. Occasionally, when very thin, the albuminons film is dissolved in the course of a few hours. Commonly, however, it increases in breadth, diminishes in density, becomes yellow or yellowish-green at its under surface; and throws off minute coagula, which fall through the acid to the bottom of the tube.

Nitric acid used in this manner as a test for albumen is also a test of the presence of uroxanthine, or bile—either or both of which are not unfrequently present in temporary and functional albuminuria.

If, in immediate contact with the acid, a ruby or violet ring is developed, uroxanthine is present; and bile also, if in addition to a red or violet there is formed likewise a green-colored ring, which remains for some time.

Two feasible objections are urged against depending solely on the employment of nitric acid in the manner described, as a test of the presence of albumen; and I have myself noticed a third; but a careful examination of their force leads me to a conclusion that they are more theoretical than real

When urine, rich in uric acid or its salts, or containing much scaly epithelium, is poured over cold nitric acid, a general turbidity arises, which is said to be undistinguishable from that produced by the presence of albumen.

But if the proposed test for albumen be properly applied, no turbidity will be produced by the presence of that substance, unless urates are also present. And then the white film of albumen is separated from the superimposed turbidity by a thin stratum of clear urine.

The turbidity produced by uric acid or epithelium is general, granular-like, and without any approach to coherence.

The turbidity approached by urates is sometimes abruptly defined below by an opaque, ring-like border, sometimes colored, sometimes not; but a stratum of clear urine intervenes between this ring and the surface of the acid, and, as above, the turbidity has no cohesion of parts. Besides this, the turbidity produced by lithates may be immediately dissipated by heat; and, if not in great excess, even by the heat of the hand closed around the tube.

The film produced by the contact of nitric acid with albuminous urine is quite different from any kind of turbidity. Confined to the layer of urine resting upon the acid, white like the disc of compressed cotton, tenacious, and when shaken with its associated fluids, breaking into flaky fragments, it seems improbable that any but the merest tyro should mistake it for anything but what it is.

In testing for albumen by means of heat and nitric acid, there may be no immediate response indicative of its presence; and yet after a few hours a flocculent precipitate may form and fall to the bottom of the tube.

A specimen of urine examined within an hour after extrusion from the bladder may yield unequivocal evidence of the presence of albumen, and cease to do so after twelve hours.

Small films of coagulated albumen produced on the surface of nitric acid occasionally disappear within a few hours from the time of their formation.

Little importance is to be attached to the presence of small quantities of albumen in the urine of women a day or two before or after menstruation. It is common without any disorder of the kidney or any sensible discharge from the vulva.

Small quantities of albumen are often present in the urines of women with leucorrhœa, and of those who have recently had fits of hysteria.

One is not justified in asserting the absence of albumen in the urine upon the result of one or two examinations. I knew a case in which albumen occurred in the urine daily for several months; but it was present only in the urine first passed after breakfast, and was never, to the time of its departure, present in the urine passed at any other time.

Men sometimes discharge a thin, whitish, glairy fluid, with the closing stream of urine in the act of emptying the bladder. This fluid is said to be seminal; but in none of the examples that I have examined were any spermatic filaments present. From its containing mucin, and young cell particles, I look upon it as an augmented and slightly altered secretion of the glands opening into the urethra. When discharged in any quantity, the urine containing it responds to all the ordinary tests of the presence of albumen.

Albumen in small quantities and unoccupied by casts, may be present in the urine daily for three years, and at last permanently disappear. This occurred in a case under my observation. The health which had previously been bad, rapidly improved after the disappearance of albumen from the urine, and became ultimately very good.

Mere hepatic congestions is sometimes the cause of slight functional albuminuria. I had under observation for sometime a lady whose "liver attacks" were invariably preceded by the appearance of small quantities of albumen in the urine With the free purgation which was found necessary for the removal of these attacks, the albumen disappeared. I remember also the case of a gentleman who was subject to somewhat similar attacks. In his urine, however, free uric acid was associated with the albumen, and both stayed several days beyond the subsidence of acute disorder. But he was a wilful patient, and chose to live well even at the cost of being ill.— *Clinical Lectures and Reports of London Hospital*, 1864, *p.* 224.

On the Employment of Apiol in Amenorrhœa and Dysmenorrhœa.

BY DR. CORLIEU.

[Apiol is the active principle of parsley. A work has been lately published by Dr. Marrote of the Hospital La Pitié, on the utility of this principle. Dr. Corlieu has now employed it for eight years, and in this paper points out the cases in which it may be expected to prove useful.]

A. In all cases where the menstrual disorder depends upon the derangement of a vital element, where there is plethora or anæmia, apiol should not be used, for, being a nervous tonic, it will only aggravate the condition of the patient. But if the condition of chlorosis be removed, apiol may be prescribed with a good prospect of success. The following case will illustrate this:—A lady, thirty-eight years of age, of a lymphatic and nervous temperament, had suffered for three months from amenorrhœa, complicated with extreme chlorosis. Dr. Galligo at first ordered apiol, but without success. At a later period he combined it with chalybeates, which had previously done no good. The combined use of iron and apiol effected a cure. Dr. Marrote relates the following case:—Miss C., eighteen years old, was of a lymphatic temperament. In childhood she had had measles, hooping-cough, and modified small pox. Her skin was of a dead white, her face somewhat swelled; the gums were swelled and discolored; she had very little appetite, and often vomited her food. She menstruated first when fourteen years old; for several months the discharge was white, afterwards it became a redish color, but was accompanied by such severe uterine pains, that she was obliged to keep her bed. As she was to menstruate on the 18th of October, I ordered her two capsules of apiol on the 15th, two on the 16th, and two on the 17th. On the 18th, the menses appeared, though still in small quantity, but unaccompanied by colics or uterine pains; they only lasted two days, and the blood was still very pale. On the 21st, I ordered a chalybeate which was continued till the 18th of November, when she resumed the apiol for three days. The menstruation was unaccompanied by pains; it continued three days, and the discharge was more colored and more abundant.

B. When the menstrual disorder depends upon a diathetic condition (dartres, scrofula, etc.,) we must, by means of a specific

treatment, such as bitters, cod liver oil, preparations of iodine, sulphur, or arsenic, attack the principal malady. Apiol is of no use at first in these cases; but when the cure of the morbid diathesis has been effected, it may be employed with advantage in stimulating the torpid menstrual function.

C. But it is chiefly in disorders which are under the influence of the nervous system that apiol is a heroic remedy, leaving far behind it all the emmenagogues hitherto employed. As a neurotonic it supplies to the nervous system the energy it has lost. Change of life, of habits, or of climate, often determine amenorrhœa. This is a fact which must not be forgotten, and which is well known to the physicians of boarding-schools and religious houses. This menstrual suppression is transitory; it lasts some months, and sometimes only gives rise to slight nervous disorders, or a slight oddity of character. In these cases, two, four, or at most six capsules of apiol will restore the menstrual flux.

The sudden application of cold during a menstrual period may suppress the discharge abruptly, and give rise to amenorrhæa, which may last for an indefinite time. In the month of January, 1861, I saw a young lady, seventeen years of age, who had menstruated for two years, but in whom, in consequence of a chill during menstruation, the flow was suppressed. The belly became considerably enlarged; there was, in fact, an ascites, which could only be explained by the amenorrhœa. There was no albumen in the urine. I employed, without success, purgatives, sudorifics, chalybeates, and the ordinary emmenagogues. There was considerable pain at what should have been the menstrual periods. This state continued until the end of April. In May, capsules of apiol given night and morning restored the discharge, though at first it was pale and serous. Iron was continued, and from that time the abdomen diminished in size. The cure was complete.

It would be easy to bring forward more cases, but the above may suffice. The point I wish to establish is, that apiol is the best emmenagogue with which we are acquainted in all cases where amenorrhœa or dysmenorrhœa have their origin in a disturbance of the nervous element. The principal condition for success in the use of apiol is in the choice of the proper moment for its administration. In almost all cases of amenorrhœa or dysmenorrhœa

which depend upon an organic cause, the use of apiol is contraindicated. This is not the place to lay down the different diagnosis of these conditions. If apiol has succeeded in some cases of plethora, it has been because the plethora was not very considerable. "In order," says Dr. Marrote, "that apiol may succeed, it is an essential condition that the pain which accompanies menstruation depend upon dysmenorrhœa, properly so called, that is, on the vaso-motor innervation of the womb. It has never succeeded in calming nervous pains, dull or acute, which were seated in branches of the lumbo-sacral nerves, and especially in the uterus, pains which appear or become exaggerated at the menstrual period, and may, at first sight, simulate dysmenorrhœa proper." Another condition for success in the use of apiol consists in choosing a time for its administration corresponding to a menstrual period. If the woman has not properly calculated the period, we may be enabled to discover it by noticing the sympathetic derangements which occur under these circumstances.—*Gazette des Hopitaux—Edinburgh Medical Journal, August*, 1864, *p.* 164—*Braithwaite's Retrospect.*

On the Application of Chloroform in Neuralgia and Muscular Rheumatism.

BY DR. DUPUY DE FRENELLE.

Dr. Dupuy maintains that idiopathic neuralgia and muscular rheumatism are two varieties of the same disease, the nerves of common sensation being equally affected in both, and the causes of both being the same. The treatment by chloroform is not new; but Dr. Dupuy contends that no one has previously employed it in the same manner as himself, except the late Dr. Aran. Dr. Dupuy states that he has discovered the means of inducing every variety of local irritation by the contact of chloroform, from simple rubefaction to vesication, the revulsive action being necessary to the success of the plan, which is described as follows: The middle of a piece of fine and well-worn linen is introduced as a stopper into a phial of pure chloroform, which is inverted so as to impregnate with the fluid a more or less considerable portion of the compress, according to the extent of the skin to be acted on; the linen is then laid over the seat of pain, and with the palm of the hand is

kept in close contact with the skin; but when the pain is limited to one spot, as in some cases of intercostal, facial, supra-orbital, or auricular neuralgia, the pressure of the thumb or forefinger is sufficient. Several successive applications should be made at once when the pain occupies more than one region, or when it exists along the entire course of a nerve, as in sciatica. In the latter case, the chloroform should be applied over the ischiatic notch, the head of the fibula, or the external malleolus, from the origin of the nerve to its termination. Dr. Dupuy brings forward in support of his practice an hundred and fifty cases, in which the largest number of applications of chloroform was twelve, and this number he has never exceeded.—*British and Foreign Medico-Chirurgical Review, July*, 1864, *p.* 246.

Paralysis of the Hand and Forearm from Smoking.

By Dr. A. J. H. Banks, Evercreech, Somersetshire.

[Dr. Banks considers that impaired nervous energy and even actual paralysis produced by the excessive use of tobacco are much more common than is usually supposed. All or most will probably endorse the assertion of impaired nervous energy resulting from excessive smoking, but cases of actual paralysis resulting from this cause must be very rare. We never remember seeing one which we could without any doubt assign to this cause.]

In February last I was consulted by P. S——. He was forty-eight years of age, tall, well made, and of rather spare figure. I found him suffering from what he called "dropped hand." It had lasted for some considerable time, and he had been under treatment for it; but finding it get worse, had discontinued for some weeks before applying to me. Recently, owing to a good deal of numbness and uncomfortable sensation down the right side and right lower extremity, he began to fear he should be unable to pursue his work (which was that of gate-keeper on the Somerset and Dorset line), and this induced him to apply to me. I ascertained that he was an inveterate smoker, and, supposing this to be the cause of his ailment, I advised him to refrain from the habit altogether. I then gave him an ordinary purgative, placed blisters on the back and front of the arm and forearm, dressed these with an

ointment composed of one grain of strychnine and one ounce of spermaceti ointment, and subsequently gave him one-sixteenth of a grain of strychnine in a pill three times daily. In ten days he had perfect use of the limb, lost all his disagreeable symptoms, and has been at work regularly since that time without any signs of it returning. He tells me that he thought, and that the surgeon who was attending him was of the same opinion, that the loss of power arose from local external injury; and that it had been treated by cold lotions and wet bandages, assiduously applied, under which it became gradually worse. I think this mistake is not unfrequently made.—*Lancet, Sept.* 3, 1864, *p.* 280.

On the Employment of Local Injections in Neuralgia, Paralysis, and other Affections.

Prof. Courtey, of Montpelier, has published a note on the efficacy of local injections of strychnia in the treatment of paralysis of the facial nerve. He injected a few drops of a solution of this alkaloid along the course of the facial nerve, between its exit by the stylo-mastoid foramen and its passage to the neck of the condyle of the lower jaw. The injection was repeated every two or three days, and three injections at the least, and six at the most, sufficed to remove entirely, in the space of from ten to fifteen days, every trace of paralysis in all the muscles of the face. The patients were a man aged fifty-six, a lady of twenty-five, and a young woman of twenty-two. In all three cases the cure was complete. M. Courty has also recorded a case of paralysis which lasted for a year, and had been ineffectually treated by various remedies, but which was cured by a few injections of strychnia, performed over the inferior extremity of the spinal cord. M. Luton, of Rhiems, has also called attention to the use of local injections in various maladies. He has successively employed a more or less concentrated solution of nitrate of silver in 12 cases of sciatic neuralgia, 2 cases of intercostal neuralgia, 3 of coxal neuralgia, etc. M. Luton has also mentioned a curious case of suborbital neuralgia removed by three injections of salt water. He has three times employed injections of tincture of iodine in parenchymatous goitres; one case was cured, the other two were

still under treatment at the date of the report. The applications of which this new plan is susceptible are very numerous, and may include the use of bichloride of mercury, arsenious acid, sulphate of copper, sulphate of zinc, and any other irritating substance which acts in the interior of the tissues in the same manner as one which is applied on their surface.—*British and Foreign Medico-Chirurgical Review, July*, 1864, *p.* 241.

Correspondence.

MADRID, SPAIN, February 12, 1866.

To the Editor of the Buffalo Medical and Surgical Journal:

My Dear Doctor:—When last I wrote you we were about to depart for Spain. Our route lay through Orleans, Tours, Bordeaux, and Boyone, whence we took the western route through Tittonia, Burgos and Tollodolid, a distance of more than 900 miles, by uninterrupted rail to Madrid, the Spanish center and capital. The whole route possesses especial interest, is rich in historic associations, and is not, like central Europe, flooded with Americans and English. You are left to mingle with and study the habits of a native population which has changed little for centuries.

At Orleans you find the memory of Joan of Arc, or the "Maid of Orleans," cherished. Her deeds are recorded in monumental stone, and bronze, in all the public squares and places; many paintings and engravings in the hotel and shop windows, bear testimony to the same fact.

Bordeaux is not only the largest town through which we pass between Paris and Madrid, and hence commercially most important, but also possesses more which claims attention from the medical observer than any other. In Bordeaux there are two large hospitals, one more especially for the citizens and another for strangers and commercial men. Each hospital has more than four hundred beds, is managed in the usual French method, both in the medical attendance and in the nursing, which latter is by the Sisters of Charity. There is, therefore, to one familiar with Parisian hospitals little which is novel; they are but copies of the parent model.

In the vault or "cavern" attached to St. Michael's church you are shown the preserved bodies of 70 to 100 individuals of all ages and both sexes. Their history, as furnished by the guide books and *valets de place*, is as follows: There is a belfry attached to the church which was built between 1472 and 1480, the steeple of which formerly rose to the heighth of 300 feet. The ground around this belfry was used as a church-yard or cemetery. In the early part of the French revolution the church-yard was closed, and the bodies dug up, and the belfry and steeple nearly razed to the ground. The bodies above referred to, many of which had been buried three or four hundred years, were found to be *perfectly preserved.* They look like mummies or dried fish, or half tanned leather. The age, sex, and even the features to a considerable extent can be made out. Here stands a General, who is known to have fallen in a duel, with the wound in the chest which caused his death, still gaping and patulous. Then an old woman, whose whole breast, and the surrounding tissues, were destroyed, probably by cancer, the remainder of the body being entire. Upon the other side are those who seemed to have died in full health, plump and round; there are others emaciated to skeletons, as by consumption. Among the number are two or three, who, from the positions which they have assumed, the twisting of the neck, tearing of the hands and the contortions of countenance manifest, leave little doubt on the mind of the beholder that the statement of the guide is correct, when he assures you that they were buried alive, these positions could only have resulted from their efforts to release themselves from a confinement most horrible to contemplate.

It may also be added that the drapery, the linen, the lace even with which the linen was ornamented; the hair, the beard, and its color are in many instances perfectly preserved. To my mind these bodies, thus completely *preserved*, (not converted into adipocere,) the liquid parts only having escaped by evaporation, present a curious subject of inquiry to the philosophic mind, as to the cause. What were the antiseptic qualities peculiar to this soil which enabled it thus completely to arrest the process of decomposition? So far as I am aware the case is without a parallel. From the guide and the gentleman to whom I had letters I could

not learn that the subjects had ever been brought to the attention of the scientific investigator, and no suggestions as to the cause of this wonderful phenomenon had been made. Upon my return to Paris I propose to pursue the subject, when I shall, perhaps, find that it has already received such attention as in my opinion it demands, and if so your readers shall learn the benefit of any intelligence which I may be able to obtain upon this curious and interesting question. Meanwhile were I to hazard a guess, it would be that the soil in which those bodies were interred contained sulphate of iron, which by permeating the animal tissues completely arrested the ordinary process of decomposition, and must preserve them for an indefinite length of time. I am led to this suggestion simply from the color of the earth from which they were taken. But speculation is useless and I dismiss the subject for the present.

It may not be amiss to say that we paid our devotions to Bacchus by visiting the wine cellars or vaults, miles in extent, and testing such delicious specimens of their contents as our excellent friend submitted to our judgment.

Leaving for Boyone we passed through what are called the *Loudes*, immense pine barrens, as we should call them in America. Low, sandy plains, upon which nothing can be made to grow except small scrub pine, and here and there a vegetable sprout of the coarsest character, and pointed with a thorn or briar. A few sheep are here and there to be seen, the only product of the country, except pitch. They are guarded by a race of diminutive, half starved looking shepherds. These diminutive and short-lived beings, clothed in the skins of the animals they tend, may be seen upon high stilts, running hither and thither with great fleetness, guarding and bringing their flocks together, or leaning back upon a peg put into a pole which they carry, and with the stilts, forming a tripod, taking their scanty meal, or whiling the time away by knitting.

Arriving at Madrid in the middle of February we were not a little surprised to find a city situated in latitude about the same as New York city, and in a mountainous region, more than 2,300 feet above the sea, so warm as scarcely to need fires. Indeed it was difficult to find a room in the best hotels in which a fire could be

built. The question of difference in temperature in the same latitudes in Europe and America has never been satisfactorily accounted for. There are, as you know, many theories, but to my mind they are insufficient to account for the fact, that, whilst you were shivering with the thermometer below zero, we, when in the north of France were reveling in *green* fields, in an atmosphere which has for years been constantly above the *freezing* point, although nearly *ten* degrees further north. Cherbourg is further north than Quebec, and as far as the center of Lake Superior.

Madrid contains about four hundred thousand inhabitants, is situated upon an elevated platteau in nearly the geographical center of the kingdom. When you bear in mind the migatory character of the "universal yankee nation," you will doubtless be surprised to learn that, aside from those who are connected with the legation, in a population of nearly half a million, there is but one resident American. Dr. Mackedean, a most intelligent and courteous gentleman, to whom we were under many obligations for courtesies during our stay, is a dentist of deserved celebrity. He has resided in Madrid more than twenty years, has been decorated and made dentist to the Royal family, and acquired for himself wealth and reputation. I am happy also in being able to add that the Doctor was a zealous supporter of the government of his native country during its late struggle, and kept the public mind in Madrid in a great degree informed as to the merits of our cause. It is not a little remarkable that the most eminent dentists in France, Spain and Portugal are Americans. This arises doubtless in a great measure from the fact that in European countries dentistry is simply studied and practiced as an art, whilst in America it has been elevated to a science, without diminishing the artistic skill exercised in the various manipulations of the art.

Medical education in Spain is under the control of the government. There have been medical schools and hospitals in Spain ever since its conquest by the Moors. They introduced Arabic lore and drugs, and established colleges, to which all Europe resorted for instruction. Surgery was neglected on account of the prohibition in the Koran to dissect. As early as the eighth century, however, a school of medicine was established in Cordova, the library of which contained more than 250,000 volumes. And

French, English and Italians came hither to study the art of healing of these "magicians," as these learned Arabians were called. After the expulsion of the Moors, the Catholic Kings employed Moorish and Jewish doctors, patronized the profession, and founded hospitals and schools in Seville and Granada. The one at Madrid, San Carlos, the most important at this time, was not founded until 1783, by Charles III. It has a fine anatomical museum, has a faculty containing no less than sixteen professors, who are appointed and paid by government. There are in attendance upon the present course, about 800 students, being much the most flourishing school now in the kingdom. The standard of education preliminary to commencing the study of medicine is fearfully low in Spain, and has a decided tendency to degrade its practice into a mere art, and greatly lessens the respect in which the profession is held in the community. Only one in four of the whole population can either read or write, according to the best statistics available. With this absence, or nearly so, of popular education, any youth may attend the medical lectures without fee, and present himself as a candidate for the highest medical honors of the University without any investigation being instituted as to his previous attainments. True to traditionary association I am credibly informed that by far the largest number of recruits is derived from the barbers and their apprentices. To show that this assertion is not a mere poetic fiction, founded upon no better authority than historic association with the profession in its infancy, I will add that, the accoucheur to Her Majesty in her recent confinement, began life as a practical barber, and that the two most celebrated practitioners now in Madrid can boast of having been apprentices to him, and following his example now abandoned the razor and strop for the scalpel and lancet, and thus "hewed" their way to their present exalted position. The trade of the barber, not only in Madrid, but in the rural cities, serves the same end with the Spanish medical student, which school teaching has accomplished for so many young Americans. Perhaps no one circumstance could be mentioned which would better illustrate the difference not only in the road taken to professional advancement, but in intelligence of the Spanish as compared to the American people. Madrid is well supplied with hospitals, affording abundant oppor-

tunity for clinical instruction to the medical student. There are two large general hospitals and several special hospitals for venereal and other diseases, and a large military hospital. The latter was built in 1841, contains 600 beds, and is in many respects a model hospital. The amount of air space allowed to each patient is one thousand cubic feet, and ventilation is well secured by basement openings. The diet-table is generous, and the whole arrangements for the care of the sick and wounded, are such as would do credit to the best of our military hospitals. Upon inquiry I found that in all capital operations they are in the habit of using chloroform, and also that it was used by the obstetrician in surgical midwifery. Ether had been for a time resorted to, but had been entirely superseded by chloroform, in the conviction that the latter was equally safe and far more reliable. There is in this institution a bed or ambulance-couch for transporting patients from room to room, or from the operating table to the bed, which was superior to anything I have elsewhere seen, and I will endeavor to procure a model for the benefit of our Buffalo hospitals. Before leaving this institution attention should be called to the room or *salle* for the treatment of the diseases of the eye. It was a fine, lofty chamber, 150 feet by 30, and at least 25 feet high, and so constructed as to exclude light entirely; or only to admit it through a green medium, and in such amount as might be prescribed. In this ward ventilation and cleanliness were perfect. I do not mean to be understood as saying, by any means, that all ophthalmic diseases require the exclusion of light for their proper treatment, but in the cases, if any there may be, where it is necessary to keep the patient in a dark chamber, the arrangements of this ward are universally perfect. In other departments of this immense institution are depots of supplies of surgical instruments, medicines, beds, bedding, etc., and arranged in readiness for immediate transportation to any part of the kingdom as the exigencies of the army may require.

In Madrid the status of the profession, as a whole, is by no means what it should command. Fees are low, except as gratuities from the rich and liberal; bickerings, jealousies and cliques among its members as prevalent here as I regret to admit they are elsewhere. In the rural districts and smaller cities the practice of

the time-honored *sangrado* still prevails, and the non-progressives in America are by these venerable practitioners abundantly sustained in the free resort to the lancet and in the frequent administration of heroic doses, to the utter neglect of the patient's sustentation, and setting at defiance all hygienic rules. Bleeding, blistering, calomel and starvation are the remedies to which the routinists subject their patients, with an energy which renders the situation of the unlucky individual anything but safe or desirable. Reformation and a more physiological and rational appreciation of the curative efforts of nature, which is the prominent feature in the advances of the profession at the present day, begin to manifest their efforts in Spain, and must sooner or later triumph over prejudice and ignorance.

The picture gallery in Madrid is scarcely second to any in the world. It is particularly rich in the old masters, though by no means deficient in the modern schools. There are no less than 10 original Raphaels, 46 Murillas, 43 Titians, 64 Valesquezs, 34 Tintonelas, 62 Reubens, 52 Teniers, 37 Van Dycks, 40 Rembrants, besides numberless others of scarcely less merit. The *Armoria* will claim the attention of all Americans, if for no other reasons than to see the "Authentic armor worn by Christopher Columbus." It weighs 41 pounds. No. 2342, which stands near by, in the same museum, is the equestrian armor of Cortez.

We were fortunate in being in Madrid during the last week of carnival. There is perhaps no place at the present time in Europe, where so much attention is given to costume, masking and festivity during this season as in the Spanish capital. Paris, Rome and Florence are now so filled with Americans and English as completely to change their nationality, and convert the hotels and fashionable boarding houses and promenades and places of amusement to their own uses, where you meet few who do not speak the English language. In Madrid carnival is the gayest season in the year, and the tourist will not fail to resort to the Prado during the then last days of its duration, which are three glorious days of public merriment. Half the population turns out *de mascora* to "intrigue" and "chaff" the other half; all in the pleasantest and most good humored way. Upon the last day of these festivities the Prado, the public promenade and drive of Madrid, presented

a scene of indescribable gaiety. The maskers, in every conceivable disguise and costume, and of both sexes, many on foot, some on horseback, and others in carriages, occupied the center of this long and broad avenue. The lookers on who could "sport a carriage," were privileged to fall into line and drive around this gay multitude, thus forming a circle of carriages several miles in length, enclosing this brilliant assembly, whilst the great mass of the population occupied seats or walked about in the large, open grounds upon either side of the lines of carriages. It would be impossible for me to give any adequate idea of this magnificent spectacle, this pandemonium turned loose. It is the great fete of the Catholic year, and is entered into with a gist and merriment which to an American is utterly incomprehensible.

In justice it should be mentioned as a characteristic of this people, that with all this "abandon" in this immense assemblage, there was to be seen no drunkenness. Indeed it is remarkable that in all their popular outbursts, at fetes, bull fights, races, or elsewhere, drunken men, black eyes, blacklegs and blackguards are never to be seen, and all and each observe a dignified deportment and pay great respect to authority. Without attempting to afford a rationale to a condition so unlike what we behold in America under similar circumstances, I will close my rambling letter and subscribe myself,

Yours, ever, JAMES P. WHITE.

[For the Buffalo Medical and Surgical Journal.]

Syphilitic and other Cutaneous Diseases cured without Mercury.

BY JOHN M. CORNELL, M. D.

To the Editor of the Buffalo Medical and Surgical Journal:

I thank you for your very excellent Journal which has come for the last three or four years. You will allow me to say: I have been so highly gratified with your article, "Necrosis of the Skull," in your March number, that I venture to send you the following, which you will publish, if you think proper:

You say, "mercury, properly administered, will, in most constitutions, control the disease, (syphilis). It is also sometimes use-

ful in other stages of the disease ; but, it is not a specific, and will not wholly eradicate it from the system at any time. It is capable of good—it is also potent for evil; and as it generally has been, and still is prescribed, quite as often works mischief as benefit."

This, so completely corresponds with my own views and experience, that I venture to give you my treatment of some cutaneous diseases, especially of a syphilitic character. Our profession, I am convinced, has placed too much reliance in mercurial preparations in the syphilitic taint, and they have prescribed it too often, and too carelessly. I have had many cases where I had reason to believe the disease was mercurial, though it had been pronounced syphilitic.

I purpose to show that, in the whole class of cutaneous, and other diseases arising from *syphilitic taint*, other remedies are more certain in the removal of the difficulty, and much more safe for the patient, than mercury.

Mercury, in some of its forms, has been considered *the specific* for this disease in all its stages; though it has generally been admitted, that it was eradicated before this mineral was employed as a medicine, and has often been since, without its use. Happily, both for the credit of the doctor, and the welfare of the patient, the old method of *salivation* is no longer resorted to, even by those who still believe that mercury is necessary in the treatment and cure of the disease in some of its forms.

Having had some experience, during the last twenty years, in treating *diseases of the skin*, whether they had originated from this peculiar malady, or had sprung from other causes, I wish to state my opinion, and the arguments upon which it is founded.

I have used mercurial preparations, and seen them used, in all their forms, in the various stages of the disease above named, and I have yet to find *a solitary case, of a chronic form*, which has been removed, or alleviated even, by the drug now in question, save only in one form hereafter to be named. I look upon the *stillingia sylvatica* as the best vegetable alterative, in this whole class of diseases, in their *chronic* form; and I have great confidence that the physician who perseveres in its use will find his patients improve, and that much more generally, than under the use of arsenic or mercury.

Another medicine in these cases which has proved highly satisfactory in my hands, is the *nitric acid*, given in doses of ten drops three times a day. Thirty years ago this medicine was given much more frequently, in debilitated constitutions, than is at present. In the debility attendant upon these cases, the following is often a serviceable remedy. ℞. Com. tinct. bark, ℥ ij.; sulph. quinia grs. xij.; muriatic acid, gtt. xx. M. Dose, a teaspoonful *ter die*. The old oxygenated muriatic acid was much employed in these diseases many years ago. It probably forms the basis of a preparation, now sold under the name of "*Oxygenated Bitters*," and is a valuable medicine when it *hits the case*, which it probably does not one time in fifty, when purchased and taken at random. I have found the following useful, in some of these old broken-down constitutions. ℞. Ioduret of iron, grs. xxx; castile soap, grs. xxx; alkaline ext. gentian, ℥i. M. Ft. pil. No. xxx. Dose: one pill night and morning.

The *diet drink*, of the pharmacopia, is one of the best medicines for purifying the blood. For the same purpose, the following receipt furnishes an excellent alterative. ℞. Iodide of potassium, ℥i.; iodine, gr. ij.; mucilage of acacia, ℥ iij.; hydrocyanic acid, gtt. xij.; aqua pura, ℥v.; sach., ℥ss. M. Dose: a table-spoonful twice a day, in a wine-glassful of water. The *bromide* may be substituted for the iodide of potassium, as it is equally efficacious, though it requires a longer time to produce its beneficial effects. The only advantage possessed by the latter is, it is cheaper.

If mercury is ever to be employed as an alterative, in these forms of constitutional taint manifested by cutaneous eruptions, the most efficacious form in which I have used it is that of Dr. Channing, named in the U. S. Dispensatory, page 1340, of the edition of 1851 under the name of *iodo-hydrargyrate of potassium*. "The average dose of this remedy is stated by Dr. C. to be one twelfth of a grain three times a day; but, in peculiar constitutions, not more than the forty-eighth, ninety-sixth, or the two hundredth of a grain, daily, can be borne." The testimony of many physicians is much in favor of this medicine as an alterative.

I am by no means alone as it respects treating this whole class of diseases without mercury. In the *New York Journal of Medicine and Collateral Sciences*, I find the following remarks, which I consider

very judicious and sensible. They are from the pen of Dr. Scott, and relate to the non-mercurial treatment of syphilis. "Thirty years since," he says, "there was no doctrine in the profession, which was considered to be so well founded as the treatment of syphilis by mercury. In England, none presumed to differ from the opinion of John Hunter, that the disease was incurable without mercury; and not only that the medicine was required to remove the disease itself, but that to cure the disposition to it, and to secure the constitution from its ravages, an extended course of mercury was required. Sir Benjamin Brodie still retains this opinion, and he (Dr. Scott) would not have called the attention of the Society to this subject, had he not observed, in the lately published essays of Sir Benjamin, some remarks, which from so high an authority appeared to him calculated to lead to an injurious line of practice. Every now and then a dissenting voice had been raised against the mercurial doctrine, but the profession in general, adhere to the opinion of John Hunter."

Dr. Scott's own experience is related as follows:—"In 1813, he was placed, for a short time, in Columbo, in charge of the venereal wards, in which the cases were all treated with mercury. Many of them, he found, were well in a few days; others in five or six, others in three weeks; periods too short to warrant the conclusion that they were venereal. They were, therefore, set down as cases pseudo-syphilis. The number of these cases increased with the field of experience; and, in a few years, the use of mercury was gradually resigned in almost every case of local disease. The *secondary* symptons were few and slight, and never required an extended course of mercury. The same plan of treatment was adopted by them, and in a few years, Dr. Scott, then garrison surgeon at Point de Galle, entirely abandoned the use of mercury. In 1818 and 1819, Dr. Scott became acquainted with the results of the investigations which had been carried on in England, and since that time, had abandoned the use of mercury, as a specific. He had found many cases in which it was required, as an alterative. Dr. S. stated that he considered every case of local disease curable without mercury; and that, under such treatment, the secondary symptoms, when they did occur, were slight, and easily managed. Dr. S., in the course of his remarks, described the miserable victims who were

constantly found in military hospitals, at the time mercury was used, affected by extensive ulcerations, nodes, &c., who furnished a considerable number of the invalids, and many deaths. Since mercury was abandoned, such cases had disappeared from the hospitals."

Dr. Maclagan expressed his satisfaction that Dr. Scott coincided in the views he (Dr. M.) had long entertained on this subject. His confidence in mercury, as a specific in syphilis, had been first shaken when, after he was a graduate in medicine, he attended, for some months, the Lock Hospital, in London, under Mr. John Pearson. There, every variety of form in the disease presented itself; but, in very many cases, seemed to be aggravated, rather than benefited, by the mercurial course. Dr. Pearson often expressed doubts, whether, in many constitutions, the use of mercury had not been more injurious than beneficial. Dr. Maclagan had seen Portuguese soldiers cured of the primary form of the disease by topical remedies alone, or merely by the addition of Lisbon diet and drinks, and sometimes without either. He saw none of those cases of secondary symptoms in an aggravated form, to which his late lamented friend, Dr. Ferguson, has alluded in his paper to the Transactions of the Medical and Chirurgical Society of London. Since 1818, Dr. Maclagan, with a few exceptions, where the patient's scruples afforded a full explanation, demanding its modified use, had adhered to the non-mercurial plan of treatment, both in dispensary and private practice; and, in no instance, has he had reason to regret it. Many, who were then so treated, are his patients still; fathers of families, enjoying, as well as their offspring, excellent health, and without the occurrence, in the period of thirty years, of any secondary symptoms of an aggravated form. On the other hand, he has seen too many cases where the use of mercury, to its full extent, has been productive of constitutional injury of the most serious character.

Dr. Bennett said, "That reports had been made to the Governments of France, Germany and Sweden, of 80,000 cases, treated upon the non-mercurial plan, and their general results were quite in accordance with the experience of Dr. Scott."

I have related the experience of these men upon a point on which I have not myself had an extensive practice, namely, the

primary stages of this disease. My experience has been chiefly in those cases of a chronic form, manifesting the disease in what are called secondary or tertiary symptoms, always arising from a *constitutional taint.* Dealing with chronic diseases, of various forms, especially with those of the *skin,* I have seen almost all kinds of such cases; and I have known the most aggravated forms of chronic eruptions, upon the head, face, and other portions of the body, wholly removed, and permanently to disappear, under a treatment without a grain of mercury. In some of these cases mercury had been employed, even to salivation, without any obvious benefit. For more than twenty years I have closely watched these peculiarities of skin diseases, and am satisfied that there is a better, safer, and more eligible method of treating them, than by employing either *mercury* or *arsenic.* If this be so, (and I think it can be proved to be) I ask, are we justified in using heroic remedies, which may produce serious injury to our patients, without removing the original disease? Would not their disuse redound to our credit—would it not be another triumph added to the success of our profession, and does not humanity demand a discontinuance of medicines which are really unnecessary, and often productive of the gravest injury to those who entrust their health and life to our hands?

I am happy to corroborate these views by the following quotation from the *London Lancet* of June 27th, 1857: "In a recent visit to the Royal Free Hospital, where a number and variety of syphilitic cases are to be met with, especially of the secondary eruptions, we find they are treated by the administration of stomachic and tonic remedies and good diet, conjoined with the following formula, viz: sulphur, ℥ i; sulphuret of antimony and nitrate of potass, ää gr. v, mixed into a powder, half of which is given night and morning, and persevered in till the eruption disappears, the health is improved, and a cure established. Dr. Marsden has employed this mode of treatment for twenty-seven years, in thousands of cases, and he observes that not one in a hundred instances has he known to return with constitutional symptoms."

I think our profession mistake often in holding on to a routine practice after it has been shown to be erroneous. We are accused of this by irregular practitioners, and, perhaps not, without some

just grounds. The writer has lived longer than many who are now active in the profession, and he can well remember, when, to have attempted to treat syphilis without mercury, and pneumonia without venesection, would have been considered, by the faculty, as empirical. Indeed, forty years ago, no physician could have discarded mercury and blood-letting in these diseases, and still have retained his standing with the profession.

I recollect a discussion in Boston, at a meeting of the Suffolk District Medical Society, when one of the oldest members, at a lull, when no one seemed ready to speak, said: "Gentlemen, since I commenced practice, fifty years ago, the *character of diseases* has changed very much. Patients will not bear such treatment *now* as they would *then.*" Some genius, (it might have been an evil one), prompted me to ask, "Doctor, do you really think the *change* has been in the *character* of the diseases, and the *nature* of the patients, or in the *practice?*" Oh! said he, "in *character* of the diseases and the *constitution* of the patients." Probably he thought so.

Now, the sooner the profession can rid itself of such notions, the better will it stand in the world. Indeed, such notions have led some to the falacy that medicine is of no use—that "if it were all sunk in the sea it would be all the better for men, and all the more for the fishes;" than which a greater blunder was never made. How prone we are to go to extremes!

Fort Erie, C. W., April 24, 1866.

To the Editor of the Buffalo Medical and Surgical Journal:

Sir—Will you allow me to tender my grateful thanks for the kind and prompt manner in which you and your medical brethren in Buffalo assisted me by your presence and evidence in the late trial for alleged malpractice, brought against me, and permit me also to thank you, particularly for your just and kind notice in the Medical and Surgical Journal, of this most malicious prosecution instituted (as any impartial, common sense person must perceive who reads the evidence, or your editorial remarks on the trial), solely with the view of extortion, and to avoid the payment of a medical bill. The kind and impartial treatment I have received at the hands of the profession, is the more gratifying, from the fact of my being comparatively a stranger and foreigner, and

consequently the action of the Faculty must have been educed, not by personal feeling, but by a pure love of justice, and a noble zeal for the honor of our profession. It has entailed upon me a lasting debt of gratitude to my professional brethren in Buffalo, and it will ever be a source of pride and gratification for me to recall the unanimous verdict in my favor of all the surgeons in Buffalo whose names stand high as men of eminence, talent and respectability.

Some explanation may be deemed necessary on account of my not having "carried up" the case and moved for a new trial, but although I had determined to do so, I find the majority of my professional friends feeling satisfied that the caprice of another jury might decide as on the first trial, and result not in any professional injury, but in a loss of time, attention to patients, and to family affairs, which would involve a far greater loss than any pecuniary one they would inflict.

Trusting you will give these few words space in the next issue of your valuable journal,

I have the honor to subscribe myself,

Your obliged friend,

P. Tertius Kempson, M. D.

Editorial Department.

Principles and Practice of Medicine. By Austin Flint, M. D., Professor of the Principles and Practice of Medicine in the Bellevue Hospital Medical College and in the Long Island College Hospital; Fellow of the New York Academy of Medicine, etc., etc.

We have been awaiting the appearance of this work with great expectation that it would furnish the practitioner a correct therapeutical guide, which desideratum has not heretofore been furnished the profession. The practice of medicine has so wholly changed within the last twenty years, that the older authors although correct in their descriptions of disease and in the pathological conditions represented, are yet recommending a plan of treatment which recent and more carefully conducted observation indicates to be not only unnecessary but often injurious. Great

changes have taken place in our views and much progress made in our knowledge of the nature and causes of disease; its natural tendency to recovery has hardly been discovered until recently, or if understood it has not been acted upon in therapeutics; even now it is only half appreciated by the most enlightened and progressive, while the less observing continue to treat disease as a unity and with mistaken earnestness "strike both it and nature at the same time," or with astounding credulity prescribe inert remedies and attribute to their influence results which belong wholly to other causes.

Dr. Flint has attempted no new plan, but has followed the usual course in presenting his work, which embraces the subjects usually taught in the lecture room. He has an original and unexcelled style of description and presents his subjects in so clear and elegant a manner as to both entertain and instruct at the same time.

We had proposed to follow our author in his special therapeutics and tell our readers what he says about the treatment of disease, but our space will not at present admit of such notice. He has not recommended blood letting, calomel, ipecac and antimony, for all inflammatory disease, but has modestly intimated that it is better practice to take some good care of our patients at the same time that treat their diseases. He has shown defference for the opinions of others and treated those who differ from him with great consideration; in speaking of remedies he has often given a place and spoken hardly, disapprovingly, of medicines which he yet betrays no sympathy for, in themselves considered, which are admitted—recognized on account of their friends. He says, "A great change has taken place, within the last few years, with respect to blood-letting in the treatment of acute inflammations. This measure was formerly thought to be highly important, and was rarely omitted. It is now considered by many as seldom, if ever, called for. The infrequent use of the lancet now, contrasted with its frequent use twenty-five years ago, constitutes one of the most striking of the changes in the practice of medicine, which have occurred during this period. It can hardly be doubted that this measure was formerly adopted too indiscriminately, and often employed too largely; but, with the natural tendency to pass from one extreme to another, it may be that the utility of blood-letting in certain cases, at the present time, is not sufficiently appreciated.

"Experience and pathological reasoning combine to show that blood-letting does not exert a direct controlling effect upon an inflammatory disease. It may exert a powerful immediate effect as a palliative measure, and whatever curative power it may possess is exerted indirectly. Its therapeutic action consists in lessening the frequency and force of the heart's action; in other words, in diminishing the intensity of symptomatic fever. In the early period of an acute inflammation accompanied by high febrile movement, as indicated by a pulse accelerated and of abnormal strength, the abstraction of blood affords relief, and may contribute to a favorable progress of the disease. It should enter into the treatment of a certain proportion of cases, provided other and more conservative means for the same ends are not available.

"The evils of blood-letting arise from its spoliative effect upon the blood. It diminishes the red corpuscles, and these, during the progress of an acute disease, are not readily reproduced. It induces, thus, the anæmic condition, and in this way impairs the vital powers. It will be likely to do harm, therefore, whenever it is important to economize the powers of life, and it may contribute to a fatal result in diseases, or cases of disease, which involve danger of death by asthenia.

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"The opinion is held by some that diseases, and the human constitution, have undergone a notable change during the last quarter of a century, and that blood-letting and other antiphlogistic measures are less appropriate now than formerly, on this account. This opinion seems to me not well founded. After a professional experience extending beyond this period just named, I do not hesitate to express a conviction that acute inflammations at the present day are essentially the same as they were twenty-five years ago, and that antiphlogistic measures were no more appropriate then, than now.

"Were it true that such changes have occurred, the fact would strike at the root of medical experience. If changes requiring a revolution in therapeutics are liable to occur with each successive generation, it is evident there can be no such thing as permanent principles of practice in medicine; the fruits of experience in our day, which so many are striving to develop, will be of no utility to those who are to come after us.

"The other measures belonging to the antiphlogistical denomination are treated, as we have said, considerately; but very few conditions are described which may not be more appropriately treated with milder and less objectionable remedies."

This work is sufficiently comprehensive to include a consideration of all the usual topics included in works upon the practice of medicine, with descriptions of disease, which are plain and truthful and according to the most recent and scientific views.

The great practical experience of the author, his careful observation of the phenomena of disease, and his habit of accurately noting its varying manifestations during a long period of professional life, together with his distinguished abilities as a teacher and writer, combine to make this book of inestimable value, as the recorded experience of one of the clearest and best educated minds ever devoted to the theory and practice of medicine. Dr. Flint's *Theory and Practice of Medicine* will be eagerly perused by all our readers—will be regarded as the *Bible* of practical medicine.

Rhinoscopy and Laryngoscopy: Their Value in Practical Medicine. By Dr. Friederich Shmelder. Physician in Ordinary to His Majesty the Emperor of Mexico, Member of the Royal Medical Society of Vienna, and of the Medical Society of the Pantheon of Paris, formerly Member of the Medical Faculty of the University of Vienna, and Surgeon to the Branch Hospital and Guinpendorf. Translated from the German by Edward Caswell, M. D. With wood-cuts and two chromo-lithographic plates. New York: William Wood & Co., 61 Walker street, 1866.

This work is placed before the medical profession so as to stimulate it to become better acquainted with the science of which it treats and the use of the instruments it describes. The author makes no undue pretensions, and shows a thorough familiarity with the subjects he discusses. The pathology of the larynx has gained a rich prize from the practical application of the laryngoscope; "and this has partly been made possible only by the fact that we could correct our previous ideas upon many of the physiological relations of the air-passages and of the parts surrounding its commencement. The therapeutics of the diseases of the larynx is, so to speak, newly created; on the one hand, we have gained new and established indications, on the other hand, local treatment has passed out of the condition of deceptive groping upon that of manipulation, which can be counted upon and watched over. New types of disease have been discovered, now that we are in a position to perceive alterations, no trace of which can be found upon the cadaver, or in which only the very last stages of development there meet us."

According to the author's method, the apparatus for making a laryngial examination is exceedingly simple, and consists of the laryngial mirrors, tongue-spatulas and illuminating spectacles. Large mirrors are preferable, as they give a clearer and more perfect image, but if from consideration of space, the smallest mirrors become necessary, the author prefers the metalic mirrors, as nothing of the reflecting surface is lost by a narrow setting. In the introduction of the laryngial mirror, the author gives the following rules: "The uvulæ should rest upon the back of the mirror, and with the soft palate is pressed backwards and upwards; the lower edge of the mirror is then gently pressed back upon the posterior wall of the pharynx, while its stem lies in the angle of the mouth, behind the superior canine teeth. The mirror should stand symmetrically and look exactly downwards and forwards. Every mirror should be warmed before its introduction. The image of the larynx in the mirror shows the right vocal chord of the person examined at the left of the observer. In the same manner all these parts which in the object stand in front, as the tongue, epiglottis, the anterior extremity of the vocal chords, the anterior wall of the trachea are seen in the mirror above, and at the same time somewhat forward, while, on the other hand, all parts which in the object lie behind, are seen below and behind in the mirror, as the arytenoid cartilages, the posterior extremities of the vocal chords, and the commencement of the œsophagus." It has been the author's experience that in about five out of a hundred individuals a laryngoscopic examination cannot be made, and that in only twenty-five per cent. does the examination succeed the first time. This work will prove very instructive to all readers, especially so to those pursuing this branch of practice.

The Physiology of Man; designed to represent the Existing State of Physiological Science, as applied to the Functions of the Human Body. By Austin Flint, jr., M. D., Professor of Physiology and Microscopy in the Bellevue Hospital Medical College, New York, and in the Long Island College Hospital; Fellow of the New York Academy of Medicine, Microscopist to the Bellevue Hospital. New York: D. Appleton & Co., 1866.

The plan of this work will comprise four volumes, based on the natural sub-division of the subject, the present volume embracing an introduction—the blood, circulation and respiration.

The treatise on the Proximate Principals in the introduction is very elaborate, and presents many new facts. The division of them is that adopted by Robin and Verdeil, with but slight modification into first, Inorganic Substances; secondly, Organic Non-Nitrogenized Substances; and thirdly, Organic Nitrogenized Substances. In summing up a review of the functions of the inorganic constituents of the body, excluding the gases, the author divides them into two groups. "One which is composed of those substances existing particularly in the solids and semi-solids, which

are in a condition of molecular union with organic substances, merge their identity, as it were, into them, and become necessary constituents of the tissues; and the other, composed of substances which rather regulate by their influence in endosmosis, or otherwise the nutritive processes do not seem to be indispensable constituents of the tissues, but have rather an accessory office to perform in the functions of nutrition." At the head of the first group he places water, while at the head of the second group stands chloride of sodium. The substances entering into the formation of the first group form a considerable proportion of the body, and are discharged from it in small quantities, while of those of the second group but little is retained in the organism, the largest proportion being thrown off.

Under the second classification a number of reliable and readily applicable tests for detecting the presence of sugar in the animal tissues are described, which to a practical physician are useful, as there are many pathological conditions in which it is essential to ascertain the facts of its presence or non-presence in the body.

In the quantitative analysis of the organic constituents of the blood a new method has been presented for which the author claims the advantage over other analysis of simplicity and facility of application. Repeated experiments have, with but slight differences, verified his estimates, and "that the extreme accuracy desired by chemists is not desirable for the physiologist, as even an approximation of the proportions of the organic matter, as they really exist, is better than the most accurate estimate of their dry residue." Anatomically he considers the plasma and the red corpuscles the most important elements of the blood; the former seeming to be employed in the nourishment of the tissues, while the latter seem to be intimately connected with the functions of respiration, their chief office being to carry the oxygen from the lungs to the tissues. Chemically the plasma contains the elements required for the regeneration of all the parts of the body. These elements are continually used up in nutrition, and replaced by the absorption of articles of food after they have undergone the process of digestion.

The changes which the blood undergoes in respiration has received much attention and investigation from the writer. Especially does the analysis of the blood for gases receive attention. He says, "during fasting the arterial blood contains from nine to eleven parts per hundred of oxygen, which amount is raised from seventeen to eighteen, and even twenty parts per hundred during digestion. The quantity of carbonic acid is even more variable than that of oxygen. During digestion the arterial blood contains from five to six parts per hundred of carbonic acid, of which amount after fasting for twenty-four hours frequently "*not a trace can be discovered.*" The nitrogen of the blood does not appear to perform any important office in the process of respiration. Its proportion is larger in the arteries than in the venous blood.

In conclusion we recommend to the student and the practitioner of medicine this work on a science which must be conceded to be the basis of true pathology. It is full of well established, well selected facts and principles; contains what is known in physiological science and is written in the excellent style of the eminent teacher and discoverer of physiological truth.

Books and Pamphlets Received.

The Transactions of the American Medical Association. Vol. xvi. Philadelphia: Printed for the Association.

Asiatic Cholera. By F. A. Burrall, M. D. New York: Wm. Wood & Co.

Biographical Sketches of Distinguished Living New York Surgeons. By Samuel W. Francis, A. M., M. D., Fellow of the New York Academy of Medicine. Re-printed from the Philadelphia Medical and Surgical Reporter New York. Published by John Bradburn, 1866.

Recent Advances in Ophthalmic Science. The Boylston Prize Essay for 1865. By Henry W. Williams, M. D., Ophthalmic Surgeon to the City Hospital, Boston, University Lecturer on Ophthalmic Surgery in Harvard University, member of the American Ophthalmological Society, etc., etc. Boston: Ticknor & Fields, 1866.

On the Mechanical Treatment of Chronic Inflammation of the Joints of the Lower Extremities, with a description of some new apparatus for producing extension of the Knee and Ankle-joints. By Lewis A. Sayre, M. D., Surgeon Bellevue Hospital, Professor of Orthopædic Surgery Bellevue Hospital Medical College, Resident Physician of the City of New York, Member of the American Medical Association, New York State Medical Society, New York Academy of Medicine, New York Pathological Society, etc., etc. Extracted from the Transactions of the American Medical Association. Philadelphia, 1865.

Descriptive Catalogue of Fluid and Solid Extracts in Vacuo, also Concentrations and Officinal Pills, prepared by Henry Thayer & Company, with formulas and receipts, 1866.

Report of the Board of Trustees of the Massachusetts General Hospital for the year 1865.

Diarrhœa and Cholera, their Origin, Proximate Cause and Cure through the agency of the Nervous System, by means of Ice. By John Chapman, M. D., M. R. C. P., M. R. C. S. Re-printed with additions from the Medical Times and Gazette of July 20th, 1865. Philadelphia: J. B. Lippencott & Co., 1866.

The Application of Sutures to Bone, in recent Gun-shot Fractures with cases; also remarks on their similar use in some other Fractures and Operations. By Benjamin Howard, M. D., Fellow of the College of Physicians and Surgeons, New York; late Assistant Surgeon, Regular Forces, U. S. Army.

Twenty-Third Annual Meeting of the Managers of the State Lunatic Asylum for the year 1865,

Prospectus of Southern Medical and Surgical Journal, Augusta, Ga. Joseph Jones, M. D., Editor.

Prospectus of Nashville (Tenn.) Journal of Medicine and Surgery. W. K. Bowling, M. D., Editor.

Prospectus of the New York Eclectic Medical Review. James A. Hershall, M. D., Editor.

Appendix to Braithwaite's Retrospect.—The publisher of the American edition of *Braithwaite's Retrospect of Practical Medicine and Surgery* has been long and urgently solicited by many of the leading members of the medical profession in this country to add an Appendix, containing a summary of the important medical features of American journalism, and thus to render the work more acceptable to its readers generally.

Our medical journals contain articles of great value, which do not receive the attention they deserve, thus depriving the profession of the valuable information, and the magazine and the author the reputation that should justly accrue to them. The publisher anticipates that this proposition will be generally acceptable to the profession, to the writers, and to the editors and publishers of magazines throughout the country.

To carry out this purpose he has engaged Augustus K. Gardner, A. M., M. D., late Professor of Diseases of Females, in the New York Medical College, well known to the profession by his numerous popular writings, who will personally edit this additional "Half-Yearly Digest of the Medical Sciences" in the United States.

Braithwaite's Retrospect.—In the next July number of the "*Retrospect*," an American Appendix will be added, entitled "*Half-Yearly Digest of the Medical Sciences;*" comprising a practical summary of every discovery and improvement in medicine and surgery in the United States, during the previous six months.

The subscription to "*Braithwaite*," including the American "*Digest*," $3.00; when not included, $2.50; the "*Digest*" separately, 80 cents a year. Single numbers, 50 cents.

The Atlantic Monthly, is placed regularly upon our table. It is devoted to Literature, Science, Art, and Politics. It is now in the ninth year of its existence, and has just completed its sixteenth volume. It numbers among its regular contributors nearly all the first names in American literature, and its pages present each month an agreeable variety of the best literature, prose and poetry. The publishers propose "to furnish to the readers of the *Atlantic* the best Essays, the best Stories, the best Poems, that can be procured; to make the magazine so rich and varied in matter, so pure and attractive in style, and so high and unexceptionable in moral tone, that no intelligent person can afford to do without it, and that it shall be regarded by all the thoughtful class of American readers as one of the *necessaries* of life."

BUFFALO

Medical and Surgical Journal.

VOL. V. JUNE, 1866. No. 11.

ART. I.—*Ovariotomy—Report of a case of successful removal of a Multilocular Ovarian Tumor, weighing twenty pounds; the pedicle returned into the abdominal cavity, the ligatures being applied to the vessels separately and cut closely.* By J. F. Miner, M. D.

Operation for removal of ovarian disease, is not now by any means very rare, and the following case is not published with this view, but rather to make one additional report to the number of successful operations, which, in the aggregate, is not yet very great, and also to illustrate one or two points of practical importance in the treatment of similar cases.

Mrs. James McGowan, aged 25 years, consulted me first in the spring of 1865. She had been married two years; was regular in menstruation; had never been pregnant; was in good health. In the left ovarian region was a distinct, movable, not very tender tumor, about six inches in diameter, attended by considerable pain, which was the first symptom and what first attracted her attention, and was present and troublesome for some time before the tumor was noticed. She had consulted a good many physicians. *Dr. Z. Pitcher*, of Detroit, and perhaps others had correctly diagnosed the disease, and recommended removal of the tumor as the only plan of radical cure. Explanation of the nature of the disease and the danger of attempting removal was faithfully and fully made, and patient left to consider the hopes it offered of recovery and the fearful chances of early fatal termination. These visits were repeated at short intervals for more than a year, when, with great firmness and determination, she appointed her time for operation, saying that life was no longer worth having in such pain

and misery. When she had thus decided she was encouraged, and the most cheerful and hopeful view consistent with the nature of the case was given her, believing that despondency and gloom were actively depressing agents, while hope and confidence would prove most powerful tonics.

The tumor had now greatly enlarged, so as to interfere with respiration and to cause much distress, which no doubt would have been temporarily relieved by tapping. The general health was becoming impaired, the expression was care-worn and very anxious. That the tumor was ovarian appeared quite certain, yet the fluid portion was so great and ascites so closely imitated in the general appearance, that doubt as to the nature of the case was expressed by professional friends, who were invited to visit and examine the tumor with me. The history, symptoms and appearance were to my mind so conclusive that no hesitation was allowed place, and great confidence entertained, though of course in absence of positive knowledge.

April 3*d*, 1866, in presence of, and assisted by, Drs. Lothrop, Eastman, Barnes, Mixer, Wyckoff, Nichell, M. H. Shaw, Frank King, Eugene Shaw, private pupils and a number of students, the operation was made in the following manner:—The patient being fully under the influence of chloroform division was made in the usual manner, about three inches in length down to the peritoneum. A trocar and canula was introduced and a small quantity of serum drawn from the abdominal cavity; the peritoneum was then divided upon a director and the tumor exposed. Examination showed but few adhesions, which were separated with the hand, except in one instance in which a portion of adherent omentum was divided with ecraseur. A trocar and canula was now introduced into a cyst of the tumor and about four quarts of a thick honey-like fluid evacuated; after which other cysts were evacuated in similar manner, until the fluid portion of the tumor had been removed, as fully as possible, traction being all the time made upon the mass, with the view to prevent escape of any of its contents into the abdominal cavity and to obtain its elevation, sufficient to admit of the division of the pedicle. By this means the mass, which in the aggregate weighed twenty pounds, the solid portion being about five and a half, and the remainder fluid, was extracted from the

abdominal cavity through an incision three and a half inches in extent. By this process there was no exposure of intestine at any time and very little of omentum. The pedicle was found not large, and a double ligature passed and secured upon either side; the division was now made with the ecraseur, hoping thus to prevent hemorrhage from the smaller vessels. After removal of the tumor, the vessels of the pedicle, seven or eight in number, were *ligated separately*, the double ligature before mentioned being untied upon one side, and then the other, thus maintaining control of the pedicle, while all its bleeding vessels were carefully ligated, the larger ones with silver wire and some smaller ones with silk ligatures, all being cut closely, and the double ligature removed. After hemorrhage had ceased entirely the pedicle was allowed to return, and there having been no escape of blood or contents of the cysts into the abdominal cavity, no sponging was necessary, and the incision was closed. Five deep silver sutures were carefully introduced down accurately to the peritoneal membrane, but not through it. It was thus placed closely in apposition, and still no irritation from suture would be produced. A wetted compress was laid over the wound and bandage lightly applied. The operation thus briefly described occupied in all about two hours; was made in a small private room, kept at a temperature of about blood heat; and when completed the patient very soon rallied and appeared cheerful and hopeful as ever. One-half grain morphine was given subcutaneously, and same quantity ordered every four hours if in pain.

April 4th. Had slept some through the night, but suffered much from nausea and vomiting—food and medicine immediately ejected from the stomach. Pain had been mostly allayed by the anodyne. Pulse 120 per minute and strong. Abdomen tender on pressure, hard and a little swollen at the lower portion. Considerable thirst and no desire for food. Urine drawn, and instruction given the nurse so that she introduced the catheter drawing the urine every few hours during the twenty days succeeding the operation, when it was voided naturally. *Tinc. opii* was now prescribed in place of *morphia* with the view that the nausea and vomiting might be thus lessened; one-half teaspoonful every four hours, was continued during the period of convalescence.

April 5th, 6th, and 7th, the patient remained essentially the same. Vomiting and pain being very troublesome, little if any food retained; sleep imperfect and unrefreshing; thirst constant; heat of the surface of the body alternating with profuse perspiration.

April 8th, to the previous symptoms were now added a distinct, circumscribed hardness, occupying the left ovarian region. Pulse 135 per minute; vomiting lessening; milk punch and beef essence retained much better.

April 9th. Pain, tenderness and swelling in the left ovarian region increased. Pulse 145 per minute. Some delirium, great restlessness, countenance anxious, still without having had at any time distinct chill. Other symptoms about the same. Bowels moved by injection; urine drawn and opium continued as usual.

April 10th. During the night, pus had escaped in small quantity near the lower point of the incision made for removal of the tumor, the remainder of the incision being closed perfectly, some of the sutures having been previously removed. Pressure upon the ovarian region caused increased flow of pus. Pulse still remained rapid and irritable; vomiting troublesome; very little desire for food. Adhesive inflammation had protected the abdominal cavity, and provided a safe way of escape for the products of any reparative processes which might take place in the divided pedicle, which in this instance furnished a large quantity of healthy pus. From the time of the escape of the purulent accumulation, all the symptoms gradually abated, and upon the twenty-fourth day after the operation the patient commenced to attend to some of her household duties. Examination at the end of the seventh week shows still a barely perceptible discharge from the wound; the patient healthy and active, walking a mile or more without fatigue, and having gained greatly in flesh and strength.

A more detailed account of the appearances and symptoms might interest some who are watching anxiously the progress of similar cases, but, it is hoped that what has been given, is sufficiently descriptive of the case to afford a correct idea of the course pursued and of the chief peculiarities of an interesting instance of recovery, possessing some points of interest which are quite remarkable.

There are a few important practical points in the report of such cases, to which it is proper to allude. The results of ovariotomy depend upon the condition of the patient when the operation is made, the manner of making it and the after-treatment.

We shall take the liberty to copy from interesting statistics collated by *Dr. E. R. Peaslee* of New York, and published in the *American Journal of Medical Sciences* for January, 1865. His statistics are for the years 1860, '61, '62 and '63, including 150 cases which have been published during the four years. Mr. J. Clay of Birmingham, collected *all* the reported cases of ovariotomy up to the commencement of 1860, amounting to 425 completed operations which had been reported in all countries. Dr. Peaslee's collection is therefore a continuation of his, up to the beginning of 1864. Of Mr. Clay's 425 cases 57 per cent. recovered, and 43 per cent. terminated fatally. Dr. Peaslee's 150 cases 99, or 66 per cent. recovered, and 34, or 43 per cent. terminated fatally. The greater success of the operation for the four years of his collection he attributes to improvements in the operation itself, and more judicious after-treatment.

That Dr. Peaslee's cases do not represent accurately the rate of mortality after this operation may be regarded certain; that it is correct of the reported cases is doubtless true. But for very obvious reasons, surgeons are more ready to report successful than unfortunate cases, so that some unsuccessful operations were made but were not published; there were enough of these to have greatly augmented the proportion of fatal cases. The causes of death in the 51 fatal cases of ovariotomy collected by Dr. Peaslee were, peritonitis 12, septicæmia (pyæmia) 9, shock or collapse 7, exhaustion 7, hemorrhage 1, strangulation of intestine in incision 1, diarrhœa 1, erysipelas 1, tetanus 1, ulceration through the bladder 1, cause not stated 10.

The following statistics are copied from Dr. Peaslee's paper:

"1. *Influence of Age.*—The following table gives the ages in 116 of the cases here collated, and the results of the operation:

Under 20 years,	8 cases.	50 per cent.	recovered.
20 to 25	"	16	"	75	"	"
25 " 30	"	13	"	76.92	"	"
30 " 35	"	24	"	45.83	"	"
35 " 40	"	20	"	80	"	"

40 to 45 years,	10 cases.	60 per cent. recovered.
45 " 50 "	7 "	57.14 " "
50 " 55 "	10 "	80 " "
55 x "	8 "	85 " "
not stated	34 "	

Thus the most unfavorable age is under 20; next, from 30 to 35; and the average of the whole decade from 40 to 50 is but 58.82 per cent. of recoveries. From 30 to 35 is perhaps the period in which the effects of child-bearing are most exhaustingly felt, while that from 40—and especially from 45—to 50, is another critical season for women.

On the contrary, the highest per centage of recoveries occur in those above 55 years (85 per cent.;) and the average above the age of 50 is 83⅓ per cent. The average from 20 to 30 years is 75.85 per cent. The oldest patient on whom ovariotomy has yet been performed is Dr. Bennett's, of Danbury, Conn., her age being 75 years. She recovered.

2. *Married or Unmarried State.*—Of 116 cases in the preceding list, 64 were married, 52 were single.

Of the married, 38 or 59⅜ per cent. recovered.
" single, 38 or 73⅓ " "

3. *General Health at Time of Operation.*—Of 98 cases the general health was robust in 41 cases, impaired in 47 cases, and broken down in 10 cases.

Of those in robust health, 31 or 75.6 per cent. recovered.
" " impaired " 30 or 63.83 " "
" " broken " 4 or 40 " "

This is a point of great practical moment, and should be noted in all future reports. 52 cases out of the 150 are not represented in the above specifications at all; though they included 34 recoveries and 18 deaths. It is my conviction that the most favorable condition under this head is *slightly impaired* health.

4. *The Kind of Tumor.*—61 of the preceding cases were polycystic tumors, and 11 cases were monocystic.

Of the polycystic, 42 or 68.85 per cent. recovered.
" monocystic, 8 or 72.72 " "

Here again we need to include all the cases; since, as just shown, the recoveries in *both* kinds of tumors are above the general average of 66 per cent. of all operated upon.

5. *Size of the Tumor.*—If we arrange the tumors weighing less than 15 lbs., under the head of "small," and the rest of "large," we find that—

Of 6 cases of small tumor, 5 or 83⅓ per cent. recovered.
" 49 " large " 37 or 86.04 " "

The figures are here too high, as under the preceding head.

6. *Duration of Tumor after it became appreciable.*

Of 23 cases of tumor of less than 1½ year, 11 or 47.82 per cent. recovered.
" 41 " " 1½ year and over, 31 or 72.72 " "

A longer duration generally implies a greater size, a considerable distension of the abdominal parietes, and some impairment of health—all of which I consider favorable circumstances.

7. *The Existence or Non-Existence of Adhesions and Ascites.*

Of 41 cases of extensive adhesions, 25 or 60.97 per cent. recovered.
" 10 " slight " 7 or 70 " "
" 16 " no adhesions, 14 or 87½ " "

Still, I adopt the opinion of Dr. W. L. Atlee, that unless the adhesions are visceral or pelvic, they do not essentially increase the danger of the operation, if performed by an experienced operator.

Only 5 cases are noted of ascites as a complication, and of these 2 recovered, and 3 died. Very likely it did co-exist, however, in some of the cases in which tapping of the tumor was resorted to.

8. *Effects of previous Tappings on Ovariotomy.*—The following table shows the result of ovariotomy in 57 patients who had previously been tapped from 1 to 12 times:

	Once tapped.	Twice tapped	3 times	4 times	5 times.	6 times	8 times	9 times	12 times.
Recovered,.....	12	11	2	1	2	4	2	2	1
Died.	2	10	2	1	2	2	1	0	0

Of the preceding 57 cases, 37, or 64.9 per cent. recovered. This is but 1.1 per cent. below the general average. The recoveries of those who had been but once tapped, amounted to 85.71 per cent. even. I have always regarded a single tapping as favorable on the whole, since it generally implies health slightly impaired, and the other advantages mentioned under a preceding head. Repeated tappings, on the contrary, imply much exhaustion in most cases; though not in the three above mentioned as 9 times, and 12 times tapped.

II. The Manner in which the Operation is Performed.—I shall consider, under this head, only the manner in which the pedicle of the tumor was managed, and the question whether, before closing the incision, the peritoneal cavity was sponged out, and whether the peritoneum was included by the sutures closing it.

1. *Management of the Pedicle.*—I here distinguish two classes of cases.

A. Those in which the *pedicle was left in situ*—whether after applying the double ligature, (Dr. C. Clay's method,) and which is brought through the lower end of the incision; or, after the ligature is cut close, (Dr. T. Smith's method.)

B. Those in which the *pedicle is kept projecting externally through the incision*, being maintained in that position either by sutures, needles, or the clamp.

Of 14 cases of the 1st class, 9 or 64.28 per cent. recovered.
" 107 " " 2d " 75 or 70.09 " "

It may, however, be added that the cases in which the clamp was applied were, most of them, operated upon by experienced operators, especially by I. B. Brown and T. S. Wells. Recent facts lead me to conclude, however, that Dr. T. Smith's method will prove to be the best.

2. *Was the Peritoneal Cavity sponged out before closing the Incision?*—I have not included the data for answering this question in my table; but I find (omitting all the cases in which there was no fluid to be removed from the peritoneal cavity) that—

Of 50 cases in which it was carefully removed, 35 or 70 per cent. recovered.
" 18 " " " not removed, 10 or 55½ " "

3. The data for answering the inquiry *whether the peritoneum was included by the sutures which closed the incision*, are also here omitted. I found that—

Of 38 cases in which the sutures or needles were passed through the peritoneum, 27 or 71.05 per cent. recovered.
Of 31 cases in which the peritoneum was *not* included, ... 23 " 74.19 " "

The causes of death, in the 11 fatal cases out of the 38, were not such as to be referred to the penetration of the peritoneum; and I think T. S. Wells' reasons for including that membrane quite conclusive.

III. The after Symptoms.—Many of the successful cases will be noticed as not having presented a single bad symptom after the operation. It cannot, however, be inferred from the non-appearance of bad symptoms during the first two or three days that the case will recover. The probability of peritonitis is thus diminished, but not necessarily that of septicæmia or of exhaustion.

IV. The after Treatment.—The data on this subject are also omitted in the present statistics. I found the custom of giving powerful doses of opiates after the operation, on the decline in the last half of the quadrennial period; and my conclusion on that point is, *give just opiates enough to allay pain, as it may rise, and to secure sleep, and no more.*"

The management of the pedicle is perhaps the one point of special importance in making this operation. What is the safest and best disposition to be made of it is a question which is not yet settled, and before positively deciding more observation is necessary. It has been disposed of in various ways and recoveries followed nearly all the different methods, but the best and safest disposition which can be made of it, is, perhaps, not yet determined. In what manner shall it be ligated, with what material, and what disposition made of the ends of the ligatures after they have been applied, are questions of great importance. Inclosing the pedicle in the incision with ligature or clamp outside the surface has been chosen by operators in a large proportion of cases, but objections to this plan are obvious. It may prevent or retard union; it is liable to cause traction upon the pedicle, places it in unnatural position, is sometimes with difficulty retained, and slides back to its place as the fastenings slowly give way. Returning the pedicle

to the abdominal cavity with the ligatures hanging from the lower portion of the incision or with the ligatures cut short are two other ways which have been adopted, and recoveries have followed both these plans of treatment, but every surgeon can see some objections to both these methods. The ligature has been made double and tied both ways, or single, enveloping the whole mass. If the pedicle is thus treated there must be left in the abdominal cavity a mass of foreign material to be disposed of in some way. It must decay and discharge, or absorb and be thus removed, or become inert by being covered with a cyst, as other foreign bodies sometimes are. In the great proportion of cases the pedicle thus ligated will cause suppuration, and the mass thus strangulated will be dislodged with the usual products of inflammation. There are some objections to all plans yet devised, but doubtless there is great choice, and time and more extensive observation will aid in making selection.

It will be observed that another plan in this instance was adopted, and that the vessels of the pedicle were ligated separately, ligatures of silver and silk cut closely, and the hemorrhage having entirely ceased, the mass was allowed to return to its natural position. The philosophy was this: that the ends of the vessels with the small ligatures cut closely would be less productive of inflammation and suppuration, less liable to be followed by septicæmia, (pyæmia,) or other accidents known to be common causes of failure. The pedicle, however, did suppurate, and probably thus was discharged the small ligatures and the ends of enclosed vessels which it was expected might be absorbed, or where silver was used, become encysted and remain inert. Philosophy does not always agree with fact, nor yet one case establish a rule. We may be able in future to show that if the vessels of the pedicle are ligated separately and safely, that suppuration will not generally result, and that the divided pedicle will heal kindly, with little if anything to be either covered or removed. Though the results of this operation show nothing conclusive in favor of this manner of ligating the vessels, still when ligating separately can be practiced, it must have advantages over other methods, and is worthy of trial, unless it becomes apparent that hemorrhage is more liable to follow it, than in other modes of securing the vessels.

I have not the data to determine how the pedicle was treated in the 450 cases collected by Mr. Clay of Birmingham, but so far as I am aware this is the first case of ovariotomy treated in this manner. The principle, however, is the same, and perhaps the suggestion was first made by Dr. H. R. Storer of Boston, who removed successfully in September last, the uterus and both ovaries by abdominal section. The excision was made with the ecraseur, and six vessels were ligated with silver wire, other vessels were twisted, and three hours allowed to elapse from the commencement of the operation before the external wound was closed. During this period the pelvic cavity was repeatedly emptied of blood by sponging, but the hemorrhage was in this manner completely arrested.

There are many points of great practical importance in connection with the subject of removal of tumors by abdominal section, and many differences of opinion may be for the present expected. It may, however, be regarded as very well established that such operations are justifiable under certain circumstances, and it appears probable that there are fewer instances in which they should not be made than has been supposed, even by those most in their favor; they are operations in which the patients have everything to gain, and very little, if anything, to lose. Dr. Storer expresses his creed, as to abdominal sections, in the following general formulæ, which we quote entire, believing it a very good and safe "platform":

"1. Almost all ovarian tumors, a far greater majority than has been generally supposed, may be safely removed by abdominal section.

2. A certain proportion, as yet not ascertained, of uterine tumors, fibroid or fibro-cystic, may be safely removed in similar manner.

3. A large proportion of the fatal instances of either operation referred to, may be traced to neglect of simple precautions, prophylactic, immediate or subsequent.

4. Others still, to the fact that the patient was allowed to linger without assistance, till she was practically morribund, before commencement of the operation; and

5. Still others, that the surgeon's heart failed him after the abdomen had been opened, and the operation was not completed."

"Your duty and mine," says West, "is not in apathetic indifference, doing nothing, trying nothing, for a patient's cure, because her disease is one which hitherto has proved almost invariably

mortal; but rather patiently, carefully, with much mistrust of our powers, much watchful scrutiny of our own motives, to apply ourselves to the trial of every means by which suffering may be mitigated or life prolonged. To this our common humanity prompts, our obligations as medical men compel us. It is to misinterpret both very grievously, if we merely content ourselves with doing nothing, but take shelter under noisy censure of the conduct, and uncharitable construction of the motives of those who read their duty differently."

Having decided the question that operation is proper and desirable, the following steps in the general plan of procedure may perhaps be as safely taken as any which have been proposed for the removal of these diseases. In the first place we should endeavor to make out the nature and extent of disease so far as possible—to determine that it is ovarian or uterine, cystic or fibrous, malignant or benign, to do this for obvious reasons, even though it be conceded that whatever the origin and character, removal offers the only rational hope of cure. Results thus far hardly justify removal by abdominal section of malignant disease; the same almost might be said of its removal by operation under any circumstances, the final result being ultimately about the same. If a tumor should prove to be of this character, no great harm would be produced—nothing very valuable lost; for the victim of such a malady to die, is gain. But I am not quite ready to despair of all hope, and would much rather err upon the side of removing even a malignant tumor, than of allowing a patient to die from the effects of a benign one, when removal offered chances of recovery.

The feasibility of operation being decided. it should be arranged with some thought and care. The condition of general health, regularity of the bowels, time of menstruation, etc., etc., require attention. Place for operation, nursing and means for proper after-treatment also depend upon the direction of the surgeon. Of the operation itself very little need be said. Anæsthesia is indispensable, not only to relieve pain but to avoid shock. Incision should be as short as will possibly admit of the elevation of the tumor, and the tumor should be lessened, when cystic, by evacuation of the contents of all the sacs. As to the treatment of the pedicle, nothing additional need be said. I am very well satisfied with the manner of treating it in the operation related, but I do

not propose to say that it is the best, nor that when opportunity again presents I shall adopt it without modification, though we "speak well of a bridge which carries us safely," and I know of no better method in the management of the pedicle than the one selected. I have bestowed much thought upon the subject since my last operation, and I am led to believe that if I was to apply ligature to the pedicle as a whole, I would carry the extremities out through the vaginal septum, and in that way insure a drain for any purulent effusion which might take place. If I found that my ligatures applied to the vessels only, controlled the hemorrhage, and did not appear liable to slip or in any manner give way, I would by preference repeat the same operation as in the instance related.

Sponging the cavity of the abdomen, and handling and exposure of intestine and omentum should be avoided as far as possible; short incision greatly aids in this.

In closing the wound metallic sutures perhaps are best and should be used; they should be introduced down to the peritoneal membrane, perhaps it is safer to say through it, but it is difficult to see that it is not just as well to pass accurately down to it and avoid puncturing the membrane itself, but this point perhaps may remain undecided for the present. A wetted compress should be placed over the abdomen and retained by a bandage comfortably applied.

Pain should be allayed with anodynes, but the brain should not be too much oppressed with opiates. The urine should be frequently drawn, the bowels moved occasionally, perhaps by injections, and the general system sustained by nutritious food. All these conditions having been faithfully secured, there is great hope for those suffering from uterine or ovarian tumor

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ART. II.—*Abstract of Proceedings of the Buffalo Medical Association.*

TUESDAY EVENING, April 3d, 1866.

The Association was called to order at the usual hour by the retiring President, Dr. RING. Present—Drs. Ring, Rochester, Gay, Gould, Cronyn, Congar, Tafft and Johnson.

The report of the proceedings of the last meeting was read by the Secretary, and adopted.

Dr. GAY moved that a committee of two be appointed to conduct the President elect to the chair. Carried.

The President appointed Drs. Gay and Congar such committee, by whom the President, Dr. William Gould, was conducted to the chair, and delivered the following

INAUGURAL ADDRESS.

GENTLEMEN OF THE ASSOCIATION:

Before entering upon the duties devolving upon me as your presiding officer, I propose to make a few remarks, which, I trust, will not be considered out of place on this occasion. But first permit me to return you my most sincere thanks for the honor conferred upon me. I deem it no empty honor to be elected to preside over this Association. It is all the more gratifying to my feelings because entirely unsought for. An abler and more experienced member might with great propriety have been selected to preside over your deliberations. As I shall occupy the chair, not from my own volition, but from your choice, I shall endeavor, to the best of my ability, to discharge its duties.

Of the past it is unnecessary to speak, more than to notice the gratifying circumstance, that in a financial view, the Association is in a sound and healthy condition. For this agreeable state of things much credit is due our efficient financial officer, Dr. Lockwood.

The non-attendance of members during the year just closed is to be regretted. Individual absence no doubt is often unavoidable from the nature of our occupation, and very often indeed from circumstances over which we have no control. But I fear we have not always this very proper and valid excuse. Our Society numbers about forty members, and we often have a bare quorum at our regular monthly meetings. I have thought that societies were much more prosperous, and better attended, when they meet weekly instead of monthly. It may be said that if our meetings are not well attended monthly, it would be worse if we met every week.

My own opinion is that the oftener we get together the more interest would be manifested in our deliberations. Then, again, by frequent meeting and contact, the younger and more diffident members would be encouraged to take part in the report and dis-

cussion of the various subjects brought before the Association. However I merely advance the suggestion that we meet once a week during the summer months. I would also suggest the propriety, if we have the necessary funds in the treasury, of having the Constitution and By-Laws of the Association printed in convenient form for distribution.

If we except variolæ, so prevalent the past fall and winter, our city for years has been free from epidemic disease, at least to any extent. Consequently our professional labors have been comparatively light and free from danger. But we are forced to look forward to the coming season with anxious solicitude. Asiatic cholera has again taken up its westward march, and has already reached our shores. We can hardly expect to escape its devastations should it once leave the metropolis and follow, as it undoubtedly would, the great lines of communication westward which traverse our State. Should it come, it devolves upon the medical fraternity to present an unbroken front, and do battle with the fell destroyer. 'A season of ordinary health," it is said, "is to the physician like a time of peace to the soldier; but the visitation of a fearful epidemic is the war in which he goes forth to battle, and to the struggle with death, that he may save others, and perhaps perish himself in saving them."

MEASURES FOR PUBLIC HEALTH.

Already measures have been inaugurated to unite our efforts with that of the Board of Health, and propositions made to divide the city into districts, and to provide the poor, and all others who by force of circumstances may require it, prompt medical attendance. This is all very well, so far as it goes, but it devolves upon us to see that this and all other hygienic measures proposed should be carried into immediate effect. If we can have thorough organization and prompt, efficient action on the part of the Board, the battle will be half won, and the usual panic on such alarming occasions as the visit of epidemic cholera may be avoided, and our citizens, by enjoying the fullest confidence, will be much less liable to take the disease.

OUR BOARD OF HEALTH.

It may be considered as trenching upon forbidden ground, to speak of the organization of the Board of Health as it now exists.

My views are that the commissioners should at all times be residents of the city proper, and the office entirely separated from political influence. The present presiding officer of the Board is very appropriately a physician, but could he be expected to leave home, his family, and his patients, to spend his time, during the summer especially, in the city, exerting his energies, perhaps sacrificing his life, as others have done heretofore, for the paltry consideration of one hundred and fifty dollars per year? We know that during previous cholera seasons the duties of the Board of Health have been both laborious and dangerous. In 1849, the President of the Board fell a victim, while with a zeal worthy a better fate, he worked night and day in behalf of suffering humanity. Many of you, as well as myself, also remember the labors of McArthur, and our lamented friend and brother, Dr. Newman, during the epidemic of 1852–4.

A BOARD BORN TO BLUSH UNSEEN.

With the present Board as men I have no objection; it is with regard to their location that I take exception. For instance, one lives at Black Rock dam, one out in the Thirteenth Ward, and the third Heaven knows where, for his name and residence is not to be found in the directory of this or former years, which fact may be taken as an indication that he may or may not live anywhere in the city limits. I do not object to the politicians in the outside territory claiming and obtaining a full share of all political offices, except that of the Health Department. That, I claim, should be within the old city limits, and as centrally located as possible; and I also believe it would be most judicious if medical men were to be selected as commissioners. If united action could be inaugurated among ourselves, and the subject properly presented to the public, I have no doubt all that is claimed for the profession would be generously conceded.

SOURCES OF DISEASE.

In all large cities there are certain sources which generate disease and feed epidemics, requiring the most assiduous care, not only by the Board of Health, but of physicians. The most prominent may be classified or designated under two heads: that of food for the proper nourishment of the body, and shelter to protect from the inclemencies of the weather; or, to be more explicit, I

bright sunlight never penetrates, and where a breath of pure air is never enjoyed. Filth and foul odors are not all that meet us there, nor do we always escape with what is only offensive to sight and smell. Such abodes furnish abundant food for cholera. It is there pestilence fattens, and from there gathers force to make its forays upon the better class of our citizens.

WORK FOR THE BOARD.

Here, then, is a large field for the active efforts of the Board of Health, and for us. In what way these nuisances can be best abated when an epidemic is impending, is a difficult problem to solve. If they cannot be annihilated, they should be certainly regulated as far as possible. In what particular way the inhabitants of these dens can be disposed of, in case we have a visitation of cholera, is another important question. If driven from one quarter by the Board of Health, it is only to take shelter in another. They cannot live in the streets, nor have our asylums sufficient capacity for their accommodation. Let us ponder well upon this subject, and, I trust, that before danger is fully upon us, some philanthropist will inaugurate measures which will free our beautiful city from its plague spots. Let us remember that thought begets action, and that but for the fertile mind and indomitable perseverance of a Wilcox, our city would not to-day have a General Hospital in successful operation.

A WORD IN SEASON.

In the mean time let us, as physicians, look well to those under our charge; and in view of the approaching danger, warn them against all exciting and predisposing causes of cholera, for no doubt in a great measure it is a preventable disease; and even in its earliest stage can be easily arrested. Let them avoid sudden exposures of temperature, severe laborious exercise, all excesses in eating and drinking, damp and unhealthy dwellings, mental anxiety and fear, for of such comes death when cholera prevails. In order also to guard our citizens from the imposition of quack nostrums always in the market and so extensively advertised in the papers, let us provide every family under our care with a proper remedy, with directions for instant use in case of an attack, for a physician cannot always be found at the moment he is wanted,

An individual or a family thus protected and provided for feels the same courage and confidence in regard to cholera, that a man feels with a loaded revolver in his hand when he meets a highwayman in the street, or finds a burglar in his house.

DATA NEEDED.

It is to be regretted that for several years we have had no published annual report of the Health Physician, if I do not mistake since that made by Dr. Strong in 1859. What reason the Board of Health may have for suppressing or neglecting to publish this document, has not to my knowledge transpired. Whether it is from inefficiency or a desire to save the expense of printing on their part, is left to conjecture. Why the department should resolve itself into a close corporation and keep the reports from the public eye, needs, and we have a right to demand, an explanation. Whatever the reason may be, it is wrong, and the Health Physician in justice to himself should insist upon its publication. Aside from the general reader, mortuary reports contain matters of special interest to the profession.

AN ABUSE TO BE CORRECTED.

In this connection permit me to refer to the matter of certificates of cause of death. Many of us no doubt are careless and dilatory in writing them out. This should be promptly corrected by those of us heretofore remiss. They should always be made with care, and left at the house or at the physician's office, so that they can be had when called for. When this is done our duty in the case is fully performed. The city ordinances require us to furnish the certificate forthwith, under a penalty of $25 for neglect. They also forbid the burial, or removal, of any person dying in the city without the sexton first obtaing a permit from the City Clerk, under the same penalty. I presume it is a well known fact to every one present, that the sextons pay little regard to this requirement; and with this laxity on the part of those entrusted with the enforcement of the laws, what reliability can be placed upon the record of mortality? When a sexton takes a body to the cemetery for burial, without a permit, he should be refused admission. Administer a lesson of this nature, and he would not be likely to repeat the experiment. The keepers of all the ceme-

teries should be held strictly accountable as well as the sextons and the evil would be cured.

Gentlemen:—I am aware that this is a Medical Association and not a Board of Health. The subject, I know, properly belongs to the latter, yet I have taken the liberty of introducing it here because it is what we are all interested in, and if it be the means of reformation of the faults referred to, the time will not be spent in vain, and I trust in a city like ours more regard will in future be paid to these important matters. Whatever the faults of others may be, let us enjoin it upon ourselves to do our whole duty, not only in the matters referred to, but in everything pertaining to our noble and self-sacrificing profession, so that should we fall by the way, and before our allotted time, we may enjoy the consoling reflection that we have faithfully discharged our obligations, not only to God "in whom we live and have our being," but to our country, society, and ourselves.

Dr. Gay moved that the thanks of the Association be tendered to Dr. Gould for his address, and that a copy be requested for publication in the *Buffalo Medical Journal* and in the daily papers. Carried unanimously.

Dr. Rochester stated that as Chairman of the Sanitary Committee, he had become acquainted with the manner in which the duties of the Board of Health were performed, and had become disgusted. He could get them to do nothing and had become entirely discouraged, and was glad that the President had spoken so plainly and pointedly upon the subject.

Miscellaneous business being in order, Dr. Congar moved that Dr. Andrew Camerling be invited to participate in the exercises of the Association until he becomes eligible to membership. Carried.

The prevailing diseases were reported to be pneumonia, diarrhœa and typhoid fever.

Dr. Rochester reported the following case:—A man about twenty-five years old who had usually enjoyed good health, was attacked with severe pain in the ear. Soon after the attack he left the house and wandered about the streets, and showed by his actions and conversation that he was insane. When the doctor first saw him he found purulent discharge from the left ear, violent pain, sometimes saw double, the eye large and bulging, and con-

siderable delirium, but no paralysis. He had passed two or three sleepless nights and days. Injected the fourth of a grain of sulphate of morphia, after which the patient slept ten hours and then felt better. Twenty-four hours after was not so well, the pain having increased. Injected a fourth of a grain of sulphate of morphia. About two hours after this he went to sleep and soon became comatose, and so remained until he died. First supposed he had nothing but otitis. Post mortem examination showed no disease of the petrous portion of the temporal bone. There was diffusion of four or five ounces of pus about the medulla oblongata. Considerable pus was also found covering most of the surface of the base of the brain and infused into the arachnoid membrane. It was undoubtedly disease of the base of the medulla spinalis. Never have met with inflammation of the brain with otitis.

Adjourned. T. M. JOHNSON, Sec'y.

ART. III—*Hospital Cases—Urinary Calculi in the Male and Female. Reported by* FRANK KING, M. D.

The urinary passages frequently become the seat of calcareous deposits, varying in composition, number and size; but generally giving rise to very distressing symptoms, and causing great uneasiness to the patient.

Urine in its normal state holds in solution a number of saline substances, which are deposited in part on cooling; these are liable to become increased in quantity from a variety of causes, as imperfect digestion, acidity of the stomach, an irritated state of the kidneys or bladder with an increased secretion of mucus. If while such an excess of the urinary salts exists, a foreign body should be present in the bladder, thus affording a nucleus for concretion, they would gradually become attached to it, and by the deposition of successive layers form a stone. But in the majority of cases the nucleus is formed in the kidneys themselves, from which it descends along the ureters, to the bladder, causing more or less irritation in its passage, where, if it is retained from any cause, gradually increases, and ultimately produces disturbance. Thus all calculi have a distinct nucleus, either descending from the kidneys or furnished by a foreign body, introduced from without. In

Dr. Miner's private collection there is one specimen which was engrafted on the end of a metallic catheter, introduced after the operation for perineal section, the patient, a lad, feeling so great relief from his former condition, allowed it to remain too long without being removed.

Calcareous disease is much more frequent in some places than in others; its frequency in limestone regions has long been remarked; habit, occupation, climate, food, drink, disease, etc., are supposed to exert some influence on its frequency, but to what extent or in what way, is not definitely known.

Case 1st—Stone in the Female.—Females appear less liable to this disease than males, and get relieved with far less difficulty, when it does occur, owing to the shortness, width, and dilatability of the female urethra. But occasionally a calculus is detained in the bladder or passages and forms a nucleus for the deposit of urinary salts, it gradually enlarges and gives rise to the symptoms characteristic of stone in the bladder. M. S., aged 20, was presented at Prof. Taylor's clinic, (Island Hospital,) suffering from symptoms analogous to those of stone. The female urethra being short, wide, and easily dilated, allows small stones to be seized and extracted through it very readily. In this case sponge tent and sea-tangle were used, and the urethra dilated sufficiently, when a small pair of forceps were introduced and a *hair-pin* extracted with a portion of a stone attached to its end; the stone itself was next seized, it being about the size of a filbert, with a deep dentation where the hair-pin had been attached.

Case 2d—Stone in the Male.—S. S., a young lad aged 12, emaciated and anxious looking, residing in the country, has suffered for about three years from a frequent desire to pass water, severe pain in doing so, especially as the last few drops are expelled, referred to the point of the penis, and extending down the inner part of the thighs, occasional sudden interruption of the stream, (caused by the stone falling over the opening and obstructing its passage,) an uneasy feeling produced by any rough motion, and walks with his thighs crossed and drawn close together. On sounding the instrument came in contact with what appeared to be a number of stones. Prof. J. R. Wood decided to perform the bi-lateral operation; the incision was carried across about an inch above the anus

and the bladder cut with *Wood's bi-sector*. Four large stones were extracted from his bladder; the wound healed kindly, and in three weeks the little fellow was well.

As soon as the stone has been extracted, the bladder should be washed out, to free it from any chips that may have been broken from the stone, the bleeding arrested and the patient placed in bed, with the legs together. The urine at first flows through the opening, but in a few days it begins to take its course through the natural passage; diet should be light and simple, and the treatment antiphlogistic.

Miscellaneous.

ANNUAL MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

First Day.

This body met May 1st, at 11 o'clock, in the main hall of the Concordia Opera House, on Eutaw street, near German street, Baltimore, there being about two hundred and fifty delegates present. The President, Dr. D. H. Storer, of Boston, took the chair. After being called to order, a very impressive prayer was offered by Rev. Dr. Spees.

The Chair stated that the first business under the rules was the reception of communications from the Committee of Arrangements. Dr. C. C. Cox, of that Committee, in an eloquent address, gave a warm welcome to the Association, and hoped that when the short stay of the members is ended, they will have cause to retain kindly remembrances of the Monumental City. He expressed his regret that so few delegates from the South were present, and hoped now that peace has come they will again return and aid the Association with their learning and experience in the great work the profession has before it. He paid a high compliment to the surgeons on both sides during the late war, and referred in pathetic terms to the many learned men who have been taken away by death since the Association met in Baltimore eighteen years ago. He closed by again warmly welcoming the visiting brethren.

The hour of meeting during the session was fixed at 9 A. M.

Under a suspension of the rules, Dr. C. C. Cox presented several papers in reference to the case of Dr. Montrose A. Pallen, of St. Louis, whose name was last year erased from the list of delegates, on charges preferred against him, showing clearly the innocence of Dr. P., and moved that they be referred to the Committee on Medical Ethics.

Dr. Toner, of Washington, moved, as an amendment, that the Association take up the subject without any reference to the Committee.

Dr. Ordway, of Boston, advocated the amendment, and stated that as the action of the previous year had been done without reference to a committee, he thought that the reparations should be as decided and prompt in the present instance. Dr. O. further remarked that as one of the protestants to the action of the Association last year, it was eminently proper that this apology should be made by a direct vote.

Dr. Davis, of Illinois, supported the original motion, on the ground that, as the action of the Association in this matter was wide spread upon the records, it was only just to Dr. Pallen that his vindication of the charges should be as full and thorough on the journal as possible. By a mere motion to rescind this would not be done, and through a committee a full report and thorough exoneration would be made public.

Dr. Cox stated that he had an interview with Dr. Pallen on Monday, and that Dr. P. preferred that the matter should be referred.

Dr. Owens, of Maryland, asked for information with regard to the case, whereupon the Chair stated that at the session held last year in Boston, charges had been preferred against Dr. Pallen, then a member of the Association, of disloyal conduct and practices, and a resolution had been there passed to erase his name from the list of members, and the question now was to restore Dr. Pallen to his membership, the statements against him having been proved to be unfounded.

The main question having been called, the papers were referred to Drs. Hooker, Brinsmade and Davis, as a Committee on Medical Ethics.

A list of names of delegates, from the Committee on Credentials, was read by the Secretary.

Under the rule for the reception of members by invitation, James E. Rives, of Fairmount, West Virginia, was received.

Dr. Thomas E. Bond moved that the committee to whom was referred the case of Dr. Pallen, be instructed to report the expression of their profound regret at the Association being hurried into its unjust action to Dr. Pallen, and that they hope that Dr. Pallen will accept this acknowledgment as an expression of a frank apology for the great wrong done him; which, together with an amendment, was laid on the table.

Dr. Storer, President of the Association, read his annual address, which was listened to attentively, and, on motion, was referred to the Committee on Publication. A unanimous vote of thanks was tendered to Dr. Storer for his excellent address.

The Committee on Ethics, to whom was referred the case of Dr. Pallen, announced their readiness to report, which was read, and speeches made thereon by Drs. Tyler, Bond, Ordway and Owens, the last named moving that the report be re-committed, with instructions to incorporate Dr. Bond's resolution, which had been previously tabled.

Dr. Hooker, from the Committee, then presented the following amended report, with the preamble and resolution, which were unanimously adopted:

"The Committee to whom were referred the papers in relation to the expulsion of Dr. Montrose A. Pallen, at the meeting of the Association in Boston, respectfully report that they have examined the documents and evidence referred to them, embracing papers endorsed by Lieut. Gen. U. S. Grant, the Vice Consul of the United States at Montreal, and many citizens of Missouri, and are fully satisfied that the statements on which his expulsion was based were entirely unfounded, and therefore, regretting the injustice done both to Dr. Pallen and the Association, we recommend the following resolution:

"*Resolved*, That the preamble and resolution adopted by the Association at their annual meeting in Boston, June, 1865, expelling Dr. Pallen, be hereby rescinded, and that Dr. Montrose A. Pallen be restored to his previous membership in the Association."

Dr. Ordway sustained the same, and moved that a committee of three be appointed to meet Dr. Pallen and inform him of the unanimous action of the convention.

Dr. Owens moved as an amendment that Dr. Cox be chairman, which was accepted by Dr. Ordway.

The chair then appointed Drs. Cox, Ordway and Sayre.

The committee soon after returned with Dr. Pallen, who was conducted to the platform amidst applause, and presented to the Association as perfectly exonerated from all charges. Dr. Pallen, in reply, stated that he was deeply gratified at the action of the Association; that its action in regard to him had almost overwhelmed him, but that, whilst buffeting with the waves of infamy and disgrace, he was comforted by the bright light of conscientious performance of duty. The man who would have dared to reproach him, with even a hint of poisoning the Croton reservoir, would have been spurned with contemptuous indignation. On the battle-fields of the war he had been stayed by no danger in the performance of his professional duty, and whether the wounded man was clad in grey or in blue, he had ministered to him, regardless of the time or place. He returned his thanks again to the Association, and also to Dr. Cox for his manly conduct, and closed with the expression of his gratitude for the warmth of his reception.

The call of special committees and volunteer papers on professional subjects for the purpose of being referred to appropriate sections was then made, lasting some time.

Dr. Jewell announced the presence of Dr. Marsden, from Canada, and moved that he be received as a permanent member, and be invited to take a seat on the platform; which was agreed to.

On motion, Dr. E. Brown-Séquard, of Boston, was invited to address the Association to-day, at 11 A. M., on the treatment of nervous disorders.

After some business announcements, the Association adjourned until 9 A. M., the various sections meeting during the afternoon to prepare business.

In the evening there was a promenade concert and entertainment to the visiting delegations at Concordia Hall, given under the auspices of the committee of arrangements, which was, notwithstanding the rain, fully attended, many ladies being present. The next evening private soirees were to be given the members of the Association by Dr. C. C. Cox, No. 23 McCulloh street, Dr. T. S. Bond, 82 Read street, and Surgeon Jos. Simpson, U. S. A., No. 40 Calhoun street. The entertainment tendered by the Mayor and City Council will follow.

Second Day, May 2d.

The Association was called to order by the President, Dr. D. H. Storer, at 9 A. M.

The Committee on Epidemics, Meteorology, &c., having been called upon, Dr. Davis stated that Dr. Hamill, of Indiana, had presented a report, which he had taken to the Section on Epidemics, &c.

Dr. Cox made an additional report from the Committee on Arrangements on Railroads, that invitations had been received from Drs. Smith and Donelson, for the members to visit their houses that evening. He also recommended the following gentlemen as members by invitation: Drs. Jno. A. Reed, W. Whitridge, L. M. Eastman, of Baltimore; Peter Parker, of China. They were elected.

On motion of Dr. Davis, the order of business was suspended.

The report of the Committee on Publication was read and accepted.

On motion of Dr. Sayre, of New York, the Publication Committee were authorized to enforce strictly the rules in regard to proofs, &c.

The Treasurer then read his report, which was referred to the Committee on Publication.

On motion, the order of business was resumed.

On motion of Dr. Davis, a recess of fifteen minutes was taken by the Association, to allow of the appointment of members of the Nominating Committee.

The Nominating Committee.—On the resumption of business, the following members of that Committee were announced:—J. C. Weston, Me.; J. C. Eastman, N. H.; Wm. McCollom, Vt.; J. R. Bronson, Mass.; D. King, R. I.; W. Woodruff, Conn.; J. C. Hutchison, N. Y.; W. Pierson, Jr., N. J.; H. F. Askew, Del.; John L. Atlee, Pa.; J. J. Cockrill, Md.; M. A. Pallen, Mo.; N. S. Davis, Ill.; W. Lockhart, Ind.; J. M. Witherwax, Iowa; N. R. Bozeman, Ala.; C. M. Stockwell, Mich.; H. Van Dusen, Wis.; T. A. Atchison, Tenn.; G. Fries, Ohio; G. Tyler, D. C.; W. M. Charters, Geo.; Josiah Simpson, U. S. A.; Ninian Pinkney, U. S. N.; Greensville Dowell, Texas.

Dr. W. Hooker offered the following resolution, which was unanimously adopted:

"*Resolved*, That no report or other paper shall be presented to this Association unless it is so prepared that it can be put at once into the hands of the Secretary, to be transmitted to the Committee on Publication."

Dr. Wister, of Pa., offered the following, which was adopted:

"*Resolved*, That Drs. Grafton Tyler, W. P. Johnston, and Jas. M. Toner, of D. C., be a Committee to procure a room in the Smithsonian Institution for the preservation of the Archives of the Association."

The Committee on Medical Education not having prepared a report, Dr. J. F. Hibberd offered instead thereof the following preamble and resolution, and moved that it be adopted as the sentiment of the Association:

"*Whereas*, Two-thirds of the Medical Colleges of the States of Ohio, Michigan, Illinois, Iowa, Missouri, Kentucky and Tennessee, by delegates in convention assembled in Cincinnati, on the 24th of April ult., did, by resolution, unanimously adopted, declare their willingness to make their annual college sessions to continue for six months, and to establish a uniform rate of fees, if the other principal colleges of the country will coöperate; now, therefore,

"*Resolved*, That the American Medical Association hereby expresses its warmest approbation of the action of the above recited colleges, and expresses the hope that every medical college in the Union will concur in the proposition thus made."

On motion of Dr. Taylor, of Iowa, its consideration was postponed till 11 A. M., on Thursday, to be acted upon in Committee of the Whole.

Dr. C. A. Lee, of New York, commenced reading his report upon Medical Literature. He divided up his subject as follows:— I. Periodical Medical Press. II. Medical Literature of the War. III. Literature of the Sanitary Commission and Sanitary Sciences. IV. State and County Society Transactions. V. Literature of Special Subjects and Specialties. VI. Literature of Pharmacy and Materia Medica. VII. Of Vital Statistics. VIII. Of Life Assurances. IX. And of Introductory Lectures.

He was interrupted at 11 for the regular order of business, which was the lecture of Dr. Brown-Séquard, on the Treatment of Functional and Organic Diseases of the Nerves.

On motion of Dr. Raphael, of N. Y., the thanks of the Association were tendered to Dr. Brown-Séquard for his interesting, able and eminently practical lecture, and he was requested to furnish an abstract for publication.

Dr. C. A. Lee then resumed the reading of his report.

After this had continued for some time, on motion of Dr. Toner, the further reading was discontinued, and the paper referred to the Committee on Publication.

Dr. Samuel D. Gross, Chairman of the Committee on Medical Education, reported that he had not prepared a report, and asked that the Committee be discharged, which was granted.

Report of Prize Committee.—Dr. E. Eliot, Secretary of the Committee on Prize Essays, read the report of that Committee.

On breaking the seals, Dr. W. F. Thoms, of New York city, was ascertained to be the author of the "Essay on Health in Cities," &c., and was entitled to the first prize, and Dr. S. R. Percy, of New York, on "Digitaline," &c., to the second.

On motion, the paper on Angular Curvature of the Spine was referred to the Section on Surgery.

The report of the Committee on Medical Ethics having been offered, it was made the special business for 9.30 on Thursday.

Dr. Marsden, of Canada, having been announced as desirous of making some remarks on Cholera, on motion, it was agreed that he should follow immediately after the report on Medical Ethics.

Dr. Cohen offered a paper on Paralysis of the Vocal Chords and Aphonia, &c. Referred to the Section on Surgery.

Dr. H. R. Storer offered a paper on the "Clamp Shield," an instrument designed to lessen the dangers of extirpation of the uterus by abdominal section.

Dr. Bozeman, of Ala., was introduced to the Association, and on motion of Dr. Holton, he was made the member of the Committee on Nominations for Alabama.

Dr. Askew offered the following resolution on the death of Dr. Couper, which was unanimously adopted:

"*Whereas*, We have heard with profound regret of the death of our deservedly esteemed friend and associate, James Couper, M. D., of Delaware, late Vice President, and one of the founders of the American Medical Association; and whereas, we desire to express our high appreciation of his worth as a man, and valuable and untiring energy in the cause of medical science; mild, modest and unassuming, of devoted piety, he was firm, constant and reliable; a strict adherent to the ethics of the profession, he occupied a front rank, and died beloved, respected and lamented by all who knew him.

"*Resolved*, That in the death of Dr. James Couper we have lost a friend and brother, and that we sincerely and deeply condole with his sorrow-stricken widow and family, and that the Secretary be authorized to forward a certified copy of these resolutions to his family."

Dr. Toner, of D. C., offered the following resolution, which was adopted:

"*Resolved*, That instead of yearly reprinting the list of members of the American Medical Association with the Transactions of the same, the Secretary be instructed to prepare and have printed in pamphlet form, a triennial alphabetical catalogue, containing the Constitution of the Association, and a list of members, with their full names, designating their residences, the year of their admission, arrearage of yearly dues, the offices they may have held in this body, and in case of death or resignation, the year, and distribute the same among the contributing members."

On motion, the resolution was referred to the Committee on Publication.

Dr. J. C. Hughes, of Iowa, offered a paper on Lithotomy, which was referred to the Section on Surgery.

Dr. Taylor, of Iowa, introduced a resolution for the appointment by the President of the Association of a member from each State, to memoralize Congress for an appropriation to publish the reports and documents of the Surgeon-General of the United States.

Dr. Pallen recommended that the reports and documents of the like character connected with the rebel army be also referred to the same committee for access to the same. Dr. Pallen, after some discussion, withdrew his amendment.

The original motion was carried.

It was then moved that the President announce said Committee on Thursday morning. The meeting then adjourned.

[TO BE CONTINUED.]

The Surgeon-General has had constructed a beautiful model of the Hicks United States Army Hospital at Baltimore, Md., which he designs to send to France, to be exhibited at Paris Exposition of 1867. The model is of wood, and is made on the scale of one inch to twenty feet.

Correspondence.

ALHAMBRA, GRENADA, SPAIN, April 1, 1866.

To the Editor of the Buffalo Medical and Surgical Journal:

My Dear Doctor:—We left Madrid on the 16th of March. The weather, even in that city, elevated more than 2300 feet above the level of the sea, and in nearly the same latitude as Buffalo, was warm and pleasant. Proceeding south to Alcozar and Cordova, we found immense groves of orange-trees in blossom, bearing green and well ripened fruit at the same time, and often upon the same tree. In Cordova there remains but the debris of a university, at one time so celebrated as to attract students from all Europe, and whose medical faculty was composed of the most celebrated men of their day. It still keeps up an organization, but it is in its senility, a shadow only of its former greatness. They have an immense "Corso de Toros," or amphitheater, for their favorite amusement in this city, and I witnessed one of these barbarous entertainments. Four bulls were killed, two horses being gored to death by these infuriated animals before they were conquered. Unfortunately the riders of these poor slaughtered horses escaped with little injury. Perhaps I am wrong in so wishing, but I could not resist the desire that the brutal men engaged in this inhuman sport! might suffer rather than their dumb victims, in the hope that in this way the horrible practice might be reformed. It is a barbarous practice to which the Spanish cling with great pertinacity, but it is to be hoped that the process of opening up the country by railroads, which is now going on, and the consequent introduction of large numbers of travelers will ere long dissipate this relic of a dark and bloody age. But I will not detain you with a dissertation upon this disagreeable subject, or with a particular description of the tournament which I witnessed.

In Cadiz there is also an old university foundation with a medical department, which possesses considerable vitality. The faculty of medicine consists of men of ability, who lecture annually to respectable numbers of young barbers and other students. The lecture rooms are all small, the students being divided into small classes, and the teacher delivers his lecture in a sitting posture, occupying in some instances a sort of pulpit, somewhat elevated

above his class. By the professor of surgery I was shown a very remarkable case of nevus maternus. It occupied the mouth, tongue and left cheek and lower lip. The tongue was immense, as large as the tongue of an ox, and the whole organ nearly back to the epiglottis, black with distended congeries of vessels of which it seemed composed. They were then applying electro-galvanism by means of small points which were inserted into the distended mass of vessels, and then the battery applied with as much power as the patient could bear. The professor informed me that it had been applied six times to the cheek, and they proposed next to insert the points into the tongue. The operater himself and all who had witnessed the effect of the cauterization upon the cheek and lips were sanguine of ultimate success; and there was a large shrivelled eschar upon the surface to which the applications had been made, which demonstrated that their expectations were not without good foundation. Being promised the result of the treatment in this interesting case it shall be transmitted for the benefit of your readers when received.

In the museum of this institution, which is large and well arranged, is exhibited a well preserved specimen of an adult male chest, in which the stomach is seen above the diaphragm and in the position usually occupied by the heart. The heart was crowded quite over to the right side. No other mal-formation was observed in this individual. He lived to the age of twenty-four years and died of a wound received in a row. The deformity was discovered only after he was placed upon the dissecting table.

There is a large and well regulated hospital connected with the school in Cadiz, affording ample opportunity for clinical instruction. This hospital liberally admits sailors who may be sick or wounded in this port, from all parts of the world. An Englishman was then in hospital, who, in a fit of mania portu, had cut his throat from ear to ear, nearly severing the trochea. The wound was nicely dressed, and the poor fellow pale from the loss of blood now quite sane, wrote upon a slate in answer to my inquiries, that he was respectably connected, was kindly treated in the hospital, and as his friends were not aware of his disgrace he was coming to America to *reform*, in case of his recovery.

Nothing of great interest in a medical point of view came under

observation between Cadiz and Malaga. The last mentioned city is situated on the northern shore of the Mediterranean, about one hundred miles east of Gibralter. It lies in an amphitheater, surrounded by lofty hills upon the east and north, which extend well round to the west. It is thus well protected from the cold winds which prevail at certain periods from those directions. The prevailing winds are from the south during winter, thus passing over the sea, upon the borders of which the city is situated. The temperature of the Mediterranean at this point does not vary a single degree in the entire year. The number of days upon which rain falls during the year does not, as established by observations extending over many years, exceed thirty-eight. The temperature varies less than in any other known district, except Madurea, which has many more rainy days, and a much more humid climate throughout the year. The climate of Malaga is warm, less humid, and much less variable than the greatly celebrated Riverid or eastern slope, so to say, of the Mediterranean between Nice and Genoa. Nice, Montone, and the other towns of the eastern coast have long been celebrated for their salubrity and continue to be favorite resorts for invalids threatened with pulmonary tuberculosis. Do not understand me as doubting the advantages of a winter residence at Nice, rather than in England or the Northern States of America. My belief, however, is, that in all the essentials of a climate favorable to recovery of pulmonary affections Malaga far surpasses them. It has fewer days of rain, hence the invalid may take exercise in the open air, which I consider of the utmost importance by just so many days more, instead of being shut up in-doors. Malaga has a higher average range of thermometer with less variation; and a higher average range of the hygrometer than Nice or any of the Italian cities.

Within fifty or sixty miles of Malaga by ascending into the mountainous district of Granada, the same equable temperature can be found for the invalid during the hot summer months, when both Nice and Malaga become unsuitable residences. Nothing can be more attractive than the natural scenery about Grenada, and there is no place which to the tourist would possess greater interest than the Alhambra. Everything here would invite open air exercise, so essential to the phthisical invalid. Hotels are

comfortable in Grenada, and horses can be hired at reasonable prices for rides into the surrounding mountains and Gipsey villages. Nice and Montone have at this moment better hotel accommodations than can be found in Malaga. The hotels in the latter place are very comfortable and less expensive than those of the eastern coast, but in every other respect the advantages are, in my opinion, greatly in favor of Spain. Malaga may now be reached by rail from the north, and I cannot doubt that it will ere long become a favorite winter resort for all with weak lungs or other diseases requiring a mild, uniform temperature, dry air and ample opportunities for out-door exercise.

But I will not detain you with what I confess has become with me a hobby, and therefore subscribe myself,

Truly yours, JAMES P. WHITE.

A Case of Radical Cure of Hydrocele.

BY H. ROGERS, M. D., DUNKIRK, N. Y.

To the Editor of the Buffalo Medical and Surgical Journal:

Dear Doctor:—The following case of radical cure of hydrocele, recently reported at a meeting of the Lake Shore Medical Society, may not be uninteresting to your readers. I report it with the hope that further experiments may be made to test the value of the new remedy employed. The previous history of the case will add to its interest and value, and I will give it and my treatment, as concisely as possible:

J. T., a young man about thirty years of age, of full habit and good constitution, first noticed the approach of his malady about five years since. Its progress was slow and was treated by suspensory bandage and topical applications. Later, injections of iodine were used, and injections of port wine, and, failing in these, he consulted a distinguished surgeon of Cleveland, who operated by making a free incision through the scrotal sac two inches in length, with no better results. Despairing of permanent benefits from severe operations he applied to me in 1864, on several occasions, for temporary relief, which was afforded him. In June, 1865, I was permitted to make an effort to effect a permanent cure. I injected the sac with a solution of ammonia ferric alum, in the proportion of ten grains to the ounce of water, retaining it for

several minutes. No pain or inconvenience followed this application, and contrary to advice, he used no other precaution to prevent accident than to wear a suspensory bandage for a few days. He continued in the discharge of his usual duties. Thus the result was a cure, painless, immediate and permanent.

I would remark that in this instance I prepared the patient for the use of the ammonia ferric alum as I am accustomed to prepare them for the use of iodine, etc., and which I regard as an important element of success in operations for radical cure by injections, by emptying the sac, if large, several days previously to introducing the injection, thus giving the distended parts time to contract well, in which condition the remedial agent acts with more efficiency.

I was led to apply this agent in this instance from the success attending my use of it in hemorrhages of various kinds, and in leucorrhœa, gleet, etc., it having a marked tonic and astringent effect. Other cases of the uses of this remedy may not be so successful, yet it is to be desired, that instances may be multiplied and the results reported.

Editorial Department.

Obscure Diseases of the Brain and Mind. By Forbes Winslow, M. D., D. C. L., Oxon. Second American from the third revised English edition. Philadelphia: Henry C. Lea, 1866.

The author, in placing this work before the medical profession, says that he "designs to briefly and clearly point out the more important, salient and characteristic symptoms that usually precede and accompany serious and often fatal attacks of the disease of the brain and disorders of the mind."

The obscurity of diseases of the brain renders them among the most difficult to treat successfully, and the physician is to guard with the greatest vigilance against, and if possible, to anticipate and prevent the stealthy approach of cerebral complications, especially as almost all affections of the brain, (according to the late Dr. Armstrong,) "though they appear to be sudden, will be found to be very slow. If the case, whether it occur in a conges-

tive or in an excitive form, be traced backwards, you will find evidence of the patient having in the one case been in a most depressed state of mind, and in the other of having been in a most active state of mind, and in both cases it will appear that the stomach, liver, bowels, head and skin, were affected."

The masked affections of the mind receive much attention from the author; he says that "at the commencement of insanity the derangements of the intellect may be so slight and transient as to render the recognition as a formidable, impending malady, a task of great doubt and great difficulty, especially in the case of children. To the unskilled, untutored and untrained eye, the disease is, in its early stages, occasionally invisible. Even to the practical apprehension of the experienced physician, it is almost indiscernible, or at least of a dubious and uncertain character."

From the analysis of 2790 cases of insanity, contained in four American asylums, we learn that 33.73 per cent. were between the ages of twenty and thirty years, while in France and England the disposition to mental disease is far less at such an early period of life. The reason alleged for this is ascribed to the fact that the young men engage in business and politics at a far earlier age in the United States than is customary in the aforementioned countries. Almost all insane, the author with Esquirol claims, "exhibit, before their disease, some alterations in their functions, alterations which commenced many years previously, and even in infancy. The greater part had had convulsions, cephalagia, colics or cramps, constipation and menstrual irregularities. Several had been endowed with great activity in the mental faculties, and had been the sport of vehement, impetuous and angry passions. Others had been fantastical in their ideas, their affections, their passions; some had had an extravagant imagination, and been incapable of continuous study; others excessively obstinate, could not live, except in a very narrow circle of ideas and affections, whilst many, void of moral energy, had been timid, fearful, irresolute, indifferent to everything."

The responsibility of the medical witness when elucidating in courts of law, the phenomena of mental derangement, to enunciate principles, in advance of knowledge possessed by those who sometimes examine, and often severely, unjustly criticise him, can-

not be sufficiently estimated, and we are exceedingly gratified in finding so much attention bestowed upon the subject of medical testimony in obscure cases of insanity. It is a too commonly received view that an alleged case of insanity must exhibit "all the usual stereotyped, artistic, poetic and melo-dramatic characters of madness, while the criminal lunatic almost invariably belongs to the class of quiet, cunning, subtle, *reasoning* madmen."

Many interesting and instructive examples of the diseases of the brain are given in this work, and it will prove to the professional practitioner a valuable acquisition, as it is written in the most excellent style and contains as far as we are able to judge most of what is known on cases of the brain and mind.

Transactions of the American Medical Association, vol. xvi. Philadelphia.

This volume of the Transactions of the Association is a book consisting of 850 pages, and containing a large number of important reports on various subjects, some of which are very handsomely illustrated. Among those of particular interest we notice the paper of Dr. H. R. Storer, of Boston, "On the Causation, Course and Treatment of Insanity in Women;" his theory being, "that in women mental disease often, perhaps generally, depends upon functional or organic disturbance of the reproductive system." Several of the gentlemen on the committee with the doctor "admit that many cases of insanity in females are produced by uterine disturbance, but believe that too much importance may be attached to these disorders, and in our willingness to refer the mental symptoms to irritation, reflected from the uterus, we may lose sight of the cerebral disease." We think possibly the doctor is a little too sweeping in his opinions, and that while many cases of mental derangement in females can be traced to the reproductive system; yet a great many can also be referred to other causes. The report is well written, and contains some very interesting and instructive suggestions.

We also notice a report on the mechanical treatment of chronic inflammation of the joints of the lower extremities, with a description of some new apparatus for producing extension of the knee

and ankle-joints, by Dr. Lewis A. Sayre, of New York. This report is practical and to the point in every respect. The description, use and application of the mechanical instruments, invented by the author, are clear and precisely explained, and cannot but lead to the most beneficial results if properly arranged.

The Committee on Medical Education, reported in favor of the colleges having a uniform and higher standard of education; they recommend that a larger number of "preparatory schools" be organized, and the student attend these instead of being in the office of a physician. The report says, "the medical education of youth ought to commence in a preparatory school, in which all the collateral branches of medicine should be taught." Preparatory medical schools are very good and should be supported, but still it depends upon many circumstances whether they are better, or even of as much value to the student as office practice, for the greater part of the more practical knowledge a young man possesses, when he graduates in medicine, is obtained in the office of his preceptor.

West on the Diseases of Children.

This well known author, upon the diseases of children, again appears in a fifth edition. Much of what he writes he has had opportunity to verify by repeated observation at the bed-side of the patients in the Children's Dispensary in Lambeth, and the Children's Hospital in Great Armond street. The present edition embodies the results of 1,200 recorded cases, and of nearly 400 *post mortem* examinations, collected from between 30,000 and 40,000 children who have been under his care in public or private practice.

This work has been long and favorably known to the profession, and this last edition will prove itself still more acceptable and valuable. The book comprises forty-four lectures, embracing nearly every subject pertaining to the diseases of children. The fullest instruction is given in the practical management of children, both medically and hygienically, thus rendering the book invaluable as a guide to the practitioner. It is for sale by medical booksellers generally, and should be in the hands of all physicians.

Books and Pamphlets Received.

Clinical Notes on Uterine Surgery, with special reference to the management of sterile condition. By J. Marion Sims, A. B., M. D. New York: Wm. Wood & Co., 1866.

Asiatic Cholera, its origin and spread in Asia, Africa and Europe; introduction into America through Canada; remote and proximate causes, symptoms and pathology, and the various modes of treatment analyzed. By R. Nelson, M. D. New York: Wm. A. Townsend, 1866.

Godey's Lady's Book for June.

Atlantic Monthly for June.

Cholera—Facts and Conclusions as to its Nature, Prevention and Treatment. By Henry Hartshorne, A. M., M. D. Philadelphia: J. B. Lippincott & Co., 1866.

Reflex Paralysis; its Pathological Anatomy, and relation to the Nervous System. By M. Gonzalez Echeverria, M. D. New York: Bailliére Bros., 1866.

Seventeenth Annual Announcement of Female Medical College of Philadelphia, 1866.

The Beacon, or a Warning to Young and Old. By Wm. Cornell, M. D., LL.D. Philadelphia: F. Humphrey & Co., 1865.

Instructions in the Preparation, Administration, and Properties of Nitrous Oxide, Protoxide of Nitrogen, or Laughing Gas. By George D. Barker, D. D. S. Philadelphia: Rubercame & Stockton, 1866.

Cholera: its Characteristics, History, Treatment, Geographical Distribution of Different Epidemics, Suitable Sanitary Preventions, etc. Illustrated with Lithographic Map and Microscopic Drawings. By William B. Fletcher, M. D. Cincinnati: Robert Clarke & Co., 1866.

The Lower Depths of the Great American Metropolis. A Discourse by the Rev. Peter Stryker. New York: Schermerhorn, Bancroft & Co., 1866.

American Literary Messenger for June.

New Medical Journals.

The Medical and Surgical Monthly, Memphis, Tenn. Edited by Drs. Ramsey, Saunders, Willett and White.

The Atlantic Medical and Surgical Journal. Edited by Dr. J. G. Westmoreland and Dr. W. F. Westmoreland.

Messrs. Ticknor & Fields, of Boston, have placed upon our table their welcome serials for May. The established reputation of the *Atlantic Monthly* leaves no room for additional praise. *Our Young Folks* is the most readable of all the periodicals issued designed for the rising generation; and *Every Saturday* is a weekly which contains, in the form of judicious selections, the cream of current literature.

Prof. Hamilton is preparing a new edition of his work on Fractures and Dislocations.

American Medical Biography.

"Dr. J. M. Toner, of Washington, D. C., is engaged in compiling and writing a *Biographical Dictionary* of all deceased American physicians of whom he can collect data of a sufficiently accurate character to enable him to give a brief sketch of their lives and labors.

Physicians and others who have deceased relatives or friends who studied or practised medicine in any part of the United States, and will take the pains to furnish the Doctor with definite facts, comprising full name, birth-place, date of birth and death, education, medical studies, place of graduating, location, success in any particular branch of practice, and whether holding any and what important public positions; if an author, the title of his publications, where and by whom published—will, besides conferring a favor on Dr. Toner, serve the cause of medical literature, of a very attractive and useful kind. It is expected that the collection will reach about ten thousand names."—*Medical and Surgical Reporter.*

We most cordially approve of this proposition, while we regard writing Biographical sketches of living Physicians as an abuse to be corrected.

Danger of Hypodermic Injections.—The London *Medical Times and Gazette* describes an accident which lately happened to Prof. Nassbaum, of Munich. Suffering from neuralgia, he had injected morphia under his own skin more than 2,000 times, sometimes to the extent of five grains in twenty-five hours. On one occasion lately he injected two grains acetate of morphia dissolved in fifteen minims of water into a subcutaneous vein, and for two hours his life was in imminent peril. We do not see clearly why the result should be serious, unless a small portion of air was injected. The Professor must have gone to work very carelessly, either to do this, or to penetrate a vein. Nothing is more easy than to avoid both accidents. After all, we may excuse the one mistake in 2,000 operations.—*Pacific Medical and Surgical Journal and Press.*

Ether.—A wealthy gentleman of Boston has placed a sum of money in the hands of an architect, for erecting a monument in that city to commemorate the discovery of the anæsthetic properties of Ether.

"Gail Hamilton has in press of her publishers, Messrs Ticknor & Fields, Boston, a new volume specially adapted to summer reading, and bearing the taking title of "Summer Rest." Most of the articles in this volume are now for the first time printed, and will be found equal to any of the author's most brilliant essays. Halicarnassus appears again on the carpet; and his exploits in the way of gardening and other domestic matters are made very amusing. Gail Hamilton is never dull. Possessed of a sharp and ready wit, speaking boldly, and that too upon topics wherein women have been supposed to have but little interest, she has already gathered about her an audience, which, by its hearty appreciation of her writings, attests the truth of many of her convictions. The success of her various volumes of essays has been without a parallel; in fact she is the most successful writer of the day."

Syphilis communicated by a Kiss.—At a recent meeting of the Chicago Medical Society a member related the history of a young woman, whose irreproachable character left no doubt of the truth of her narrative, who experienced the horrors of syphilitic inoculation, through a kiss from the gentleman to whom she was engaged. A chancre upon the lip was the result of this caress, and subsequent medical investigation revealed the fact that the young man was at that time under treatment for syphilitic ulceration of the throat.

Erie County Medical Society.—The regular Annual Meeting of the Society is held on the second Tuesday of January, at half past ten o'clock A. M., at the rooms of the Buffalo Medical Association, Young Men's Association Buildings; and the Semi-Annual Meeting is held on the second Tuesday of June, at the same time and place.

Correction.—The article in the *May* number on "Syphilitic and other Cutaneous Diseases cured without Mercury," was written by *William* M. Cornell, M. D., LL. D., of Philadelphia, not by *John* M., as printed by mistake.

BUFFALO
Medical and Surgical Journal.

VOL. V. JULY, 1866. No. 12.

ART. I—*A few Remarks on Cholera.* By Thos. F. Rochester, M. D.

Never, perhaps, was the approach of an epidemic disease watched, discussed and feared, more than that of the pestilence which even now has commenced its attack upon the chief city of the United States. This arises from natural and proper anxiety, from ignorance, and from the different and almost opposite views of medical men upon the nature, propagation and treatment of the disease. It is the object of the writer of this paper, to endeavor to disarm the minds of those members of his profession, who have never encountered the disorder, of that doubt and distrust of remedial measures, which is the natural result of the contrariety of opinions, expressed in the pages of the medical journals of the day. The remarks which follow are not based upon any theoretical ideas, nor are they intended to imply any superior knowledge to that possessed by those whose opportunities of treating and observing cholera have extended over two or more of its visitations. They are simply the expression of convictions based upon a large professional experience derived from four epidemics, three in this country and one in Europe. Cholera is probably properly classed as a zymotic affection—emanating from the filthy and densely populated districts of the East Indies, it has at various times and with variable intermissions desolated large portions of the habitable globe—sometimes traveling as it were in a fixed course, from east to west, and sometimes taking irregular flights and pouncing upon distant and isolated localities, scourging them fearfully, and then for a long time entirely subsiding. It has been regarded as

an atmospheric, indefinite *something*, capable of extending itself against winds, over mountains, and across large bodies of water. Again it has been thought telluric, an exhalation from the deadly jungles of Siam and Hindostan—and latterly and with more reason, it is looked upon as a disease, however arising, that is extended and propagated by those persons who are exposed to it, and more notably by those who sre attacked by it. In no other manner can it be reasonably explained how it breaks out in mid-ocean. The germ taken from some infected port, breaks out at last, especially under the inviting combination of filth, crowding, bad ventilation and improper food. It is usually characterized by well marked premonitory symptoms; these are a sense of fatigue and lassitude, and a *painless* diarrhœa, the latter having a duration of from a few hours to several days. This diarrhœa, however, does not always pre-exist. The writer has known of at least two instances where violent vomiting was the first intimation of any derangement of health, and in both cases death ensued in less than six hours. During the outbreak of cholera at Suspension Bridge in 1854, we have the statement of Dr. Sanford B. Hunt that the disease was often fatal in a few hours, and where there had been no premonitory diarrhœa whatever. Happily, however, in the vast majority of cases, there is a premonitory diarrhœa. When the disease is fully formed, this is replaced by copious discharges from the stomach or bowels, or from both, of a *serous* fluid, containing more or less white flocculi, and hence called *rice water discharges.* This serous fluid is nearly identical in composition with the serum of the blood, while the flocculi are formed of shreds of mucous membrane and of its epithelia. Great weakness, cramps in the extremities, coldness of the surface, huskiness of the voice, shriveling and moisture and lividity of the skin and entire suppression of urine, with sometimes slow and sometimes frequent, but always feeble pulse, and often entire cessation of the radial pulsation, ensue, and constitute the algid or collapse stage of the disease, and in it death often takes place apparently from syncope. When re-action does occur, it is often succeeded by rapid restoration to health. In some instances, however, and especially in some epidemics, what is termed *the congestive stage* is developed, and this is often fatal. It may be briefly described as a typhus state, with marked cerebral derangement.

The above description, it is believed, presents most of the phenomena of cholera. There are, it is true, a few cases to which it will not fully apply, as collapse with cramps and suppression of urine without either vomiting or purging, but even in these instances, where post mortem examination has been held, the stomach and intestines have been found filled with the characteristic rice water. At this point, the question of the communicability of cholera seems pertinent. Until within the last two years the weight of medical opinion has been opposed to the idea of infection, but the writer feels that it is but just to himself to declare, that for fifteen years he has been one of the few who have held and taught, that cholera, and dysentery also, was probably propagated by the evacuations. The manner in which cholera has been thus far restricted by rigid quarantine regulations, this season, in New York bay, would seem to sustain this view. Not knowing what the morbific poison is, nor its precise derivation, we are also at a loss as to its exact mode of action. One insists that its first effect is upon the nervous centres, another is equally positive that the blood itself is the primary seat of change; another finds the liver and alimentary canal in fault; and still another refers most of the trouble to the respiratory organs and to the circulatory apparatus. The fact is, this terrible poison *acts* upon the entire system, and the attempt to localize its specific place and mode of action has never succeeded, and has probably only made mischief. The information we obtain from necroscopy, relates chiefly to the mucous membrane of the alimentary canal and to the blood. In those who die in the algid stage, the stomach and intestines contain more or less of the *rice water;* the mucous membrane is pale, looking as if it had been macerated, the epithelial surface often being absent, as if it had been dissolved or washed away. The gall bladder usually is well filled with the biliary secretion. The right side of the heart is filled with thick, pasty, dark blood; the left chambers are empty and collapsed. The lungs are increased in specific gravity, made more dense in parts by a kind of atelectasis, and often contain thick, dark, infiltrated blood spots. The red points in the brain are large and deepened in color. The kidneys are dark and congested, and the bladder is empty and contracted. In those who die in the febrile or conges-

tive stage, the mucous membrane of the stomach is covered with a thick, tough secretion, while that of the small and large intestines is red and injected, and in some instances inflammed and even ulcerated in portions of its tract. The plates of Peyer are sometimes found enlarged, and when this is the case, the corresponding mesenteric glands are red, softened, and also enlarged. The blood in the right side of the heart is less thick and pasty than in the algid stage, and the left chambers are not found entirely empty. The kidneys are red, but not engorged, and a small amount of urine is generally found in the bladder. The membranes of the brain are injected, and there is usually a little fluid in the ventricles. The lungs present evidences of passive engorgement.—From the phenomena of the disease and from the post mortem appearances, is it not evident that there is intense *gastro-enteritis*, painless because attended with copious secretion, and, will not this "serous diarrhœa" explain the condition of the blood and of the circulatory and respiratory apparatus, the nervous prostration and the suspension of the urinary secretion? Of course there is a cause, an unknown cause, that induces this tremendous gastro-enteric secretion, and this morbific force is sometimes so intense and overwhelming, that it induces death from *shock*, as in Muscat, where, "from the first apparent seizure, ten minutes only elapsed before life was extinct." But although there are doubtless many exceptional cases, it certainly seems to the writer, that in the large majority of instances the ratio of mortality corresponds with the amount and duration of the "serous diarrhœa," Dr. Johnson of London, to the contrary notwithstanding. *If it is* true that by vomiting and purging the choleraic poison is eliminated, why do all sensible men urge attention to the premonitory diarrhœa? Why is an attack of cholera induced by improper diet? and why is an active and irritating cathartic distinctly the exciting cause of many fatal cases?

(TO BE CONCLUDED IN AUGUST NUMBER.)

MURRAIN IN PALESTINE.—From a report received from Captain Wilson, in Damascus, it appears that the murrain among the cattle still rages violently in the north of Palestine.

ART. II.—*A Case of Gun-shot Wound of the Femur.* By J. R. Lothrop, M. D.

August Ferkie of the 100th N. Y. V., was wounded in an engagement which took place August 16, 1864, at Deep Bottom, Va., on the north bank of the James River, during the siege of Richmond. After his wound he was left on the field and taken prisoner. He was wounded about 10 A. M., and the next morning was taken to Richmond. The wound was made by a minie ball, which shattered the left femur in its upper third, near the point of its union with the middle third. The ball was probably split into several pieces, as subsequently two pieces escaped from the broken thigh, and a portion inflicted a wound upon the right, though it did not perforate it. A portion of the ball perforated the left thigh, then, and lodged in the right—being, as was supposed by the surgeon who examined him, stayed in its progress by the right femur.

He remained a prisoner about a week, then was exchanged and taken to the military hospital at Annapolis. During the time he was a prisoner he had no treatment, and little food, though the rebel surgeons were liberal in examinations, using the finger as a probe, and discussed the propriety of enlarging the wound to remove the loose pieces of bone. Nothing, however, was done till he reached the hospital at Annapolis. Then the limb was suspended for a period of four weeks, and afterwards extension by weights employed and continued for some time; as nearly as he can remember about 11 weeks, a weight of 18 pounds being used. While there the portions of the ball spoken of came out of the wound. In seven months he was removed to Baltimore, where he remained till he was discharged, about one year ago. He came to Buffalo, and three months since entered the Buffalo General Hospital. While under treatment in Baltimore several pieces of bone came from the limb, one two inches in length, the others small. He was able to walk about on crutches in eleven months after he was wounded. Up to the present time there has been a discharge from the wound, and pain more or less constant. At various times recently, small pieces of bone, exfoliations probably, have worked their way out. Still he is able to walk some portions of the day, with the aid of crutches.

When admitted to the hospital, three months since, both wounds, viz: that of entrance and exit were unhealed, and discharging pus quite freely. There were besides on the side of the wound of entrance, several openings four inches above. The sinuses leading from all these openings took the direction of the seat of fracture. The limb was shortened nearly three inches, the foot rotated inwards, and the motions of all the joints limited. At the point of union there was great irregularity. The short upper fragment was displaced upwards and outwards rather more than is usually observed in fractures high up in the femur, giving to the outside of the thigh a rounded and prominent appearance. At the seat of fracture there was a great thickness of bony casing, uniting the ends and enclosing the fragments, living and dead. With all this, though the man had been crippled and worn down by nearly two years of exhausting efforts of repair, his condition warranted an attempt to hasten recovery by an operation. The suppurative discharge indicated the presence of fragments of necrosed bone, imprisoned within the new bony casing; although no roughness could be detected by the probe.

The aim of an operation was, the removal of these fragments. For this purpose the trephine was applied to the bone, at the wound of entrance, near the point of fracture, to enlarge the opening which already existed, and through which pus found exit. A section of bone having been removed, an opening was made into a bony cavity large enough to permit an exploration. Several fragments of dead bone were found and removed, the largest being nearly an inch in length. These sequestra were below the opening made in the bone, and appeared to have had connection with the lower part of the shaft. This might be expected from the length of time which had elapsed since the original injury, viz: nearly two years. According to the statements of Mr. Curling fragments are longer in effecting their separation from the lower than from the upper portion of the shaft in cases of compound fracture of the femur. The cavity was then washed out and left to fill up by granulation; no closure of the soft parts being attempted. No great disturbance of the system followed this operation, and though the purulent discharge was for a time increased, it soon became less than before the operation, and some of the sinuses ceased to

give exit to pus. At the present time, three months since the operation, there seems good prospect that the purulent discharge will soon cease. But if such a result should not follow, it will in no way bring into question the propriety or advantage of the operation; for, the removal of sequestra by operation is a positive gain over the slow elimination by natural methods. The continuance of the discharge would rather indicate the presence of other sequestra undetected, than that new death and exfoliation had followed from the violence done to the bone by the operation.

This is a case similar to many which have been and will be reported, of recovery from comminuted fracture caused by gun-shot wound. As reported many have been made to appear much better as to their results than they ought. The course in many cases seems to have been as follows: After a time there has appeared to be union, the fragments seemingly retaining their life, and becoming incorporated as sound bone in the restored femur. The external wound, has also often closed, and the cure seemed complete. The reasoning has been that the continuity of the periostium was not disturbed, and the fragments retaining their periostial connection and consequently their life, were able to make, like living bone, a definitive union with each other and with the main portion of the shaft; and thus in the end, restoring the femur not to perfect length and form, but consolidated apparently, and ensuring the saving of the limb. Some cases have so resulted, and as far as they go, furnish argument for the propriety of attempting to save a comminuted femur at whatever point broken. But others, and the number will be larger than has been supposed, after a seeming recovery, even to closing of the wounds of the soft parts have, when the use of the limb has been resumed, at a longer or shorter interval, become first painful, then inflamed and swollen, ending in abscess, purulent escape, and prolonged suppuration. The fragments closed in by new bony formation, have not retained life from the first, although they gave promise of being joined as living bone in a restored shaft; have in the end acted like foreign bodies, brought about the inevitable result of death of bone, viz: pain, inflammation and continued suppuration. In time they will escape, and use of the limb, little or much crippled, as the case may be, will be obtained; but always at a great expense

of time and strength. In many cases an operative procedure like that described above is not only proper, but of great advantage. But in cases of these "cured" comminuted fractures, even with the aid we can give by removing the sequestra, we may expect long years of suffering from repeated abscesses, exhausting suppuration, exfoliation, and such depression of the vitality as to lead to phthisis; or if not, to long continued feeble health, chills, inability to endure cold; to say nothing of shortening and deformity which can hardly be avoided.

Several interesting questions arise from a review of the above case. In the first place the limb was saved. This of itself is a result, according to most military experience, to be seldom looked for. When we are made fully acquainted with the experience of our military surgeons in such cases, we may find that gun-shot comminuted fractures of the femur are much more capable of conservation than has been supposed. But military experience previous to our own, has not been very encouraging, as to any expectation of success. Though shortened, deformed, painful, and attended with necrosis and suppuration, the result is much better than can be obtained in many cases. Death is too often the termination. It is impossible to state the proportion, where attempts to save are made, in which life is saved even with an ill conditioned limb. But the per centage has not been very large, as can be readily ascertained by examining the records of military surgery at present existing. The extensive experience of the Crimean campaign furnishes but few in number, of cases saved; among the French hardly any. Reports, here and there, by different surgeons, indicate that our experience in the late war was attended with more favorable results, but no definite conclusion can be arrived at till the entire statistics are published.

This directs our attention to the propriety of attempting to save. Should amputation be at once performed? The determination of this question depends upon the site of the fracture. If in the upper third, all military surgeons, up to a late period, agree that an attempt should be made to save, for though a large number of those in which the attempt is made will die, yet amputation in that situation is probably more fatal. Amputation in the upper third has proved so fatal, that in some wars, as in that of the

Crimea, it was almost abandoned as hopeless. The proportion of deaths is nearly ninety per cent.; so that, however unpromising the effort to save may be, it can hardly fail to be less so than immediate amputation—secondary amputation being, from the nature of the case, entirely out of the question. In the Hospital of the Invalides M. Hutin collected records of twenty-four cases of limbs saved after comminuted fracture of the femur above the middle, but found no evidence of a case of recovery after primary amputation for fracture in that situation. When the fracture is in the middle or lower third, but especially in the former, the case is just the opposite. In those situations amputation has given by far the best results. If the question were equal as to saving life, it certainly seems that a good stump to which an artificial limb can be attached, is to be preferred to a twisted and shortened limb, poor at best, and only to be saved through years of suffering. But amputation at these points affords better results in the saving of life. If the two points are compared with each other, it appears that there is a much greater certainty of saving life and limb when the fracture is in the lower, than when in the middle third, unless too near or extending into the knee-joint. Non-union, as is well known, is most usually in the middle third.

The next point suggested by the case, is that relating to removal of the fragments. It appears that the rebel surgeons were disposed to remove them, but did not. No attempt was suggested afterwards, by the surgeons at Annapolis, as the period when such a proceeding was feasible, had probably passed; as after inflammation had set in the attempt would de more likely to do harm than good. In regard to the removal of fragments, it seems as if the propriety of so doing, soon after the injury, could hardly be questioned, when they are at all loose. If wholly separated, removal is the only proper course, for their death is certain, and their elimination by long process is inevitable. But if loosely connected, so that their death is by no means certain, there is some question as to what is best. It would seem as if all doubt as to the preservation of vitality in these fragments, should weigh in favor of their removal. They become incorporated in the new bone, and if portions of them subsequently die and exfoliate, they keep up fistulous openings for a long time, and they may set up

an inflammatory action which will extend the destruction to bone which would otherwise have remained healthy.

The destructive splintering and displacement of fragments which is the very common result of a fracture by a conical ball, renders the question of removal more clear. The comminution is usually extensive, and moreover the fragments may be so disturbed as to lie at various angles to the axis of the shaft; and even by being interposed prevent that apposition of the ends which favors consolidation. Fragments which have a firm connection and are not much disturbed, are properly allowed to remain, though they may subsequently exfoliate. Judging from results, had the fragments been removed in this case, as suggested by the rebel surgeons, it would have been far better than to have allowed them to remain. In regard to the method of removal, it appears from testimony, that enlargement of the wound of exit is preferable to enlarging that of entrance. The force of the ball generally drives the broken pieces and small splinters in that direction, and therefore it is easier to reach on that side the portions which ought to be removed.

Surgeons are not agreed as to extension in cases of comminuted gun-shot fracture. There is evidently danger of producing such a separation of the ends of bone, as will delay if not interfere with union. It seems to be a measure of doubtful propriety. But a good deal depends upon the extent comminuted, and upon the shortening caused by muscular contraction when not opposed by extension. If the bone is much comminuted and many fragments are removed, the shortening by muscular effort should be unopposed, and on the other hand when too great it should be counteracted. It seems in this case a weight of 18 pounds was found necessary, at least we may conclude so, since considerable shortening took place, even with the amount of extension employed. Apart from results, which may be held to determine its necessity, the weight employed seems much greater than we should suppose would be found of advantage. Probably all requisite care to avoid rotation was exercised, inasmuch as whatever the care taken to avoid it; some twisting must be expected.

We may conclude in review of the above case that, thus far, the result has been as good as we are warranted in expecting in cases

of such severity. Though the limb saved is such a one as is hardly worth keeping, yet recovery even with a poor limb, is the best of which the case was capable. It is to be set down among the results which are justly entitled rare. Keeping out of view the question of saving life, a crooked, twisted and shortened limb is a little better than a stump so short as to preclude the idea of using an artificial limb. But taking into account, that recoveries after amputation in the upper third are extremely exceptional, we cannot but conclude that it was better to adopt a course in which recovery is rare, rather than one in which it is exceptional. In this case the result is more surprising when we consider the unfavorable circumstances in which the patient was placed soon after his wound, viz: a week's captivity, during which very little attention could or was likely to be given him, and several removals within the first ten days. That the attempt was made to save rather than amputate, may have been mere chance, for we are not yet informed what was the practice in such cases in the rebel army, but there seems to have been no intention of resorting to the latter, as far as can be ascertained from the patient's statements. It is probable that they did not think amputation advisable.

ART. III.—*Foreign Substances simultaneously in the Trachea and Oesophagus—Report of a remarkable instance, with operation and death.* By J. F. Miner, M. D.

Quite a variety of substances have been known to enter the air-passages, and such accidents are not very uncommon. The same may also be said of foreign bodies in the œsophagus; they consist commonly of bones, fragments of meat or cartilage, coin, etc., etc. Artificial teeth have been swallowed, and remarkable instances of their passing through the œsophagus are on record; sometimes, however, such substances become obstructed in their passage and produce severe and even fatal effects. When any foreign substance is lodged in the upper portion of the œsophagus a marked and deceptive symptom, may be difficulty in breathing, giving rise to the appearance of its being lodged in the trachea; suffocation might thus take place from long-continued pressure, the same as when the wind-pipe is obstructed. Generally, it will not be diffi-

cult to determine if a foreign body is in the trachea; respiratory murmurs will often point out its exact location; much, however, depends upon the character of the foreign body; smooth, unirritating substances produce less severe immediate effects, while the remote consequences may not be less serious.

If the œsophagus becomes obstructed it may be the cause of a double evil—it produces a difficulty or impossibility of deglutition, and often of respiration, acting upon both channels at the same time; cases have been reported of suffocation from lodgment of bone and other substances in the œsophagus.

The following remarkable case of obstruction of both trachea and œsophagus will be noticed with interest by all those who have had similar cases fall under their care—by all who have ever attempted removal of foreign substances by operation, from either trachea or œsophagus:

J. B., aged three years, child of Mr. B. of Lancaster, swallowed one of the new two cent coin, about April 2d, which was supposed by the family, and also by the family physician, Dr. Potter, to have passed through the canal, and to not be liable to produce any serious effects. This expectation is fully justified by repeated facts—the old one cent coin—which is much larger, having passed harmlessly the alimentary canal of such children in numerous instances. The child, however, showed signs of its lodgment, complaining of difficulty and pain in swallowing and some obstruction in respiration. Milk and fluids were taken and the child remained for two or three weeks without great change, never swallowing without difficulty and distress, which appeared increasing rather than diminishing. Three or four days previous to my visit, the difficulty in respiration had become greatly increased and paroxysms of dyspnœa became so frequent and distressing that my attendance in connection with Dr. Potter was invited, with the view of surgical relief. Upon examination it appeared certain that some foreign body was lodged in the wind-pipe; the paroxysms of dyspnœa were too severe and the constant difficulty in respiration too great, to allow of any other conclusion. Supposing that the trouble must be due to the presence of the penny, and being ignorant of any other possible causes of obstruction, it was determined to open the trachea and if possible discover and

remove the foreign body. The child was slowly and cautiously brought under the influence of chloroform, and the trachea opened without difficulty or embarrassment from anything except the painful paroxysms of coughing and dyspnœa, which several times caused us to delay for some minutes in our operation. When the patient could breathe, all was well and progressing satisfactorily, but when the paroxysms of coughing and difficult respiration occurred, all hopes of success would disappear. At length when the full opening was made in the trachea, allowing free access and exit of air, one of these paroxysms commenced, and soon it was apparent that no air could be inhaled; the wind-pipe was closed to all ingress of air, and only a little could pass outward with the efforts to cough. An exploring probe was passed rapidly, hoping to remove obstruction, but nothing could be detected, and air could not be admitted to the lungs. Death came kindly to the relief of the little sufferer, and the very intelligent parents of the child allowed exploration to determine the causes of all the suffering.

A two penny coin was found imbedded in the œsophagus opposite the upper border of the sternum, the edges upon each side having caused ulceration completely through the tube, the walls of which were thickened, complete opening prevented by adhesive inflammation. This thickening of the tube caused considerable pressure upon the trachea and would of itself have proved sufficient cause of death. Added to this we found an uncooked bean which had swollen somewhat and softened by the moisture and warmth of its position; this had evidently rested near the bifurcation of the trachea, perhaps partly upon or in one of its divisions, and had thus allowed of respiration. When air was freely admitted the coughing dislodged it, and the trachea was closed—closed by a substance unlike bone or metal to be detected by a probe, but soft and yielding, and of such a shape as to close the passage as perfectly as possible. After this discovery it was remembered by the mother that the child a few days before had amused itself with some beans, and while thus playing had suffered a violent turn of coughing and strangulation, since which, she had appeared every way much more distressed.

In reviewing the main features of the case, it is readily apparent that a child with a bean in the mouth would be much more

liable to inhale it into the trachea if the œsophagus was obstructed by a foreign body, itself pressing upon the wind-pipe and causing coughing and labored inspiration, than if no such obstruction existed, and such substances are by no means very infrequently drawn into the trachea in conditions of perfect health. That such a combination of maladies should be found is much more remarkable, than that it should prove impossible to overcome them and save the life of the little sufferer; indeed either one of these accidents are frequently enough the cause of death. I have a specimen I have preserved with care—a flat bone an inch in length by about one-half an inch in diameter and pointed at one extremity, which I succeeded, a few years since, in removing from the left bronchus of a young lady when almost in *articulo mortis*, and since then I never quite despair of affording relief until life has become wholly extinct. Could the exact condition of this patient have been assertained previous to operation perhaps attempt at removal would hardly have been made, and yet the urgency of such a case requires an effort, at least, for relief. I had rather the victim of such an accident die during attempts to relieve, rather than to sit inactively and make no trial. Well directed efforts will not always prove successful, but death comes more welcomly if all available means have been employed to stay its course. Dr. Potter, had, in this case, wisely delayed all operative interferenee until it was manifest relief could come from no other means. The termination was sudden, the diagnosis necessarily imperfect, but the same result was liable to occur even at the same time, without operative interference; had we known the exact condition, the same result would have been every moment expected.

The simultaneous obstruction of the œsophagus and trachea must be a rare accident; that such may have occurred is probable, but they have not come within my knowledge, and I infer since I see no mention of such condition, that it is worthy of record, partly on account of its rarity.

Cattle Disease in the Madras Presidency.—The cattle disease has spread to an alarming extent in Burmah, and in some cases is said to have affected the human species.

ART. IV.—*Table of Infantile Mortality in the City of New York.* By CYRUS RAMSAY, M. D., LL. B.

A Table of Still-born in each year, and Deaths of Infants from one day to one year of age, from 1854 *to* 1866.

YEARS.	Still-Born	2 days	2 to 5 days	5 to 15 days	15 to 21 days	20 days to 1 month	1 to 2 months	2 to 3 months	3 to 4 months	4 to 5 months	5 to 6 months	6 to 7 months	7 to 8 months	8 to 9 months	9 to 10 months	10 to 11 months	Under 1 year
1855	1565	351	921	375	113	449	403	814	820	710	412	200	176	298	460	301	6771
1856	1680	302	852	341	93	387	361	786	799	690	382	189	166	263	468	355	6437
1857	1692	387	912	366	143	409	377	794	812	733	402	215	201	303	482	369	6905
1858	1700	462	954	394	160	450	380	794	814	739	408	218	207	310	486	377	7109
1859	1701	424	904	364	132	423	352	753	769	717	368	177	169	271	438	333	6599
1860	1671	376	854	334	104	396	324	712	724	695	328	156	145	241	398	302	6087
1861	1690	400	862	334	108	406	326	730	721	706	340	160	147	346	400	303	6189
1862	1660	376	849	321	88	374	334	670	734	374	318	126	136	200	521	309	5720
1863	1651	398	873	301	102	399	359	737	746	463	352	177	165	241	478	327	6118
1864	1673	416	884	344	104	404	346	720	760	404	358	148	156	250	452	312	6058
1865	1700	420	900	349	104	414	351	721	768	434	408	157	167	250	461	313	6217

This table gives the exact number of children that died in this city at the various ages indicated therein, also still-born in the several years. I have been unable to make comparisons of similar deaths in other cities, there being no classification (so minute) to my knowledge made. I hope the time is not far distant when a system of this character will be adopted in all cities and countries where mortuary statistics are or may be kept. In estimating the benefits of the progress of medical science and the results of sanitary improvements in reducing infantile mortality, the only correct basis is the *number* of deaths in a given period compared with another of a certain population. The causes of death are important; but the fact that diseases change at different periods, and physicians do not always call the same disease by the same name, and farther, it is not an easy matter in all cases to give the precise disease of which very young children die, therefore the cause of death cannot be so easily determined, but the age can almost always be ascertained.

ART. V.—*Abstract of Proceedings of the Buffalo Medical Association.*

TUESDAY EVENING, June 5th, 1866.

The President, Dr. Gould, in the Chair.

Present—Drs. Gould, Gay, Cronyn, Whitney, Trowbridge, Rochester, Tafft, Hazen, Smith, Gleason, Ring, Boardman, Greene, Wetmore and Johnson.

The reading of the minutes of the last meeting was, on vote of the Association, dispensed with.

DR. ROCHESTER related the following case of puerperal eclampsia: Was called a few weeks ago to the case, but being engaged at the time sent my associate, Dr. Abbott, who found the patient in puerperal convulsions, and advanced to the eighth month in pregnancy. Dr. Abbott immediately gave chloroform to anæsthesia. Called myself an hour after and found the patient with a full, strong pulse, rather plethoric and severe headache. Bled freely from the arm. Soon after the arm was tied up another convulsion came on. Gave chloroform to anæsthesia. Two hours later another convulsion came on; after which I took about the same quantity of blood from the arm as at the first bleeding, having taken in all about thirty-two ounces of blood; after which she had no more convulsions After two days the labor came on when she was delivered by forceps.

I believe that chloroform alone is insufficient to control the convulsions in a majority of these cases. Blood-letting and chloroform combined are much more efficient. Blood-letting is as useful now as ever it was, and should be resorted to in cases like the one just related. Would call the attention of the Association to an article upon this subject in the *Buffalo Medical Journal*, written by Dr. Newman.

DR. GOULD mentioned a case similar to the one just related by Dr. Rochester, in which blood-letting and chloroform were combined, with excellent results.

DR. CRONYN remarked that he regretted that the treatment of such cases by blood-letting had been so much ignored within the last few years. He believes that in plethoric cases, with full, strong pulse, the blood-letting quite as useful as the chloroform. In hysterical cases chloroform alone is very nseful, and usually will control the convulsions. In apoplectic or epileptic cases blood-

letting is very important and useful. Keeping the patient under the influence of chloroform for a proper length of time, after bloodletting, is very useful.

Dr. Gay reported the following case:

A. B. N., aged 39 years, of intemperate habits, drank to excess for two days, when he became very violent, and was sent to Buffalo General Hospital. When called to see the patient found him almost lifeless, the surface presenting a very livid appearance, the respiration very labored, had in fact almost ceased; deglutition impossible; pulse would cease for considerable time and then returned feebly. Opened the jugular vein, when the blood was at first thick, almost coagulated; at the expiration of about five minutes the blood flowed freely until about thirty-two ounces had been taken, when the opening was closed. After the bleeding ceased the pulse became fuller and stronger and quite regular. Respiration improved, and he became conscious a few hours after. Two days later his left arm became red and swollen, and on the eleventh day he died of erysipelas. The patient's life was undoubtedly prolonged the eleven days by the means employed by Dr. Shirley and the superintendent of the hospital.

Dr. Gay stated that the portrait of Dr. Josiah Trowbridge was in Mr. Hill's studio, and requested the Secretary to have it placed in the rooms of the Association.

Adjourned.

T. M. Johnson, Sec'y.

Correspondence.

Rome, May 21st, 1866.

To the Editor of the Buffalo Medical and Surgical Journal:

My Dear Doctor:—From Granada in Spain, whence I last wrote you, we coasted the Mediterranean, by rail, by diligence or by vettura to Genoa in Italy. This route passes through countries surpassingly beautiful and interesting. In the course of its progress it affords almost every conceivable variety of scenery. In this journey, which is more than one thousand miles in length by this route, which is ordinarily pursued by the tourist, we passed for

the most part in close proximity to the sea on the one hand, whilst upon the other, we had a succession of artificial terraces extending high up into the mountains, the summits being surmounted by peaks of granite. These terraces, stolen as it were from their barren hill-side, are ever covered with the vine, the orange, the lemon, the fig, and still more abundantly with the olive. The road is often carried along upon high cliffs overhanging the sea and commanding beautiful views of these historic waters.

Between Nice and Genoa we passed over the famous "*Cornici*" road, which now occupies the site, during most of its route, of the older "Aurelian way." The present road was built by the French and Sardinian governments, and is a most permanent and beautiful structure. It is carried along the slopes of the sub-Alpine chain, as it forms the shores; in some parts rising to a great height, and although doubtless entirely safe, it hangs upon the margin of the precipice so as to excite the apprehensions of the nervous traveler. Passing over this road in the latter part of the month of March, whirled along at a rapid rate, in a vettura, with a pleasant party of four, and drawn by four fine horses, through picturesque scenery, and stopping at discretion at good hotels, in quaint old castles or villas, with uninterrupted sunshine, constitutes, in my experience, the "poetry of traveling." The towns and villages, thickly studded along the coast, and glittering upon the sides of the hills, sometimes placed at a great elevation, wear a gay aspect. The old churches, which are to be found in every cluster of houses, no matter how small the village, have usually very lofty facades, painted in fresco. At a distance, the lofty and bold elevations, the gay colors, the tall belfreys, and numerous cupolas, produce a striking effect upon the beholder, who only detects any defects arising from profusion of gay ornamentation upon a near approach. Suddenly you rush into one of these old towns with streets so narrow as not to permit a wheelbarrow to pass you, driving the foot passengers rapidly before you or compelling them to take shelter in the shops on either side. This coast or "*riverid*," as it is called, sloping toward the sea, and exposed to a southern sun, enjoys a temperature scarce'y to be surpassed. Nice, Mentone, San Remo and Bordighiera, have a world-wide reputation as winter residences for patients with pulmonary difficulties.

But I must not linger in the orange groves or among the beautiful cypresses of this enchanting coast; nor must I ask the musical reader to accompany me to dreamy Venice, "Queen of the Sea," and float among her princely palaces to the song of the gondolier, feasting his eyes upon the treasures of art which they contain, as he glides through its liquid streets. No, the true disciple of Esculapius is compelled in the practice of his arduous profession to forego all indulgence of his poetic fancy and confine himself to sober, scientific realities. He has sworn fidelity in a profession which recognizes no night, no Sunday, no season of rest or holiday, which heeds not the storm, and seeks the pestilence with all its terrors; he can scarcely afford time to accompany an idle brother into these fairy scenes. Omitting then all allusion to beautiful statuary and paintings, to splendid palaces and magnificent churches, to be found in all the large cities of Italy, let me ask him to accompany me through the halls of the old Universities of Padua and Bologna. .

The University, or in more ancient language, the *studio* of Padua, enjoyed considerable celebrity more than six hundred years ago. At first it was prominent in law, and the great Baldus here taught and professed what lawyers call "the written reason." Padua also greatly excelled in medicine, and the medical professorships of the University include some of the greatest names of the sixteenth and seventeenth centuries. Tesalius Fallopius, Fabricius de Aquapendente, Spigelius and Sanctorius here taught with great distinction in the sixteenth and early part of the seventeenth centuries. In times much nearer to our own, Morgagni continued to emulate their honors, making anatomical discoveries which will hand his name down to posterity. This University was especially encouraged and protected by the Venetians, and with the decline of the city and republic of Venice, this school lost its great patron, and soon after its exalted position, as a seat of learning. Padua can boast the earliest anatomical theatre, and the most ancient botanic garden in existence. The latter was instituted by the Venetian Senate as early as 1543. The collection of anatomical models in the museum is still worthy attention, and the garden is interesting as containing some of the oldest specimens of trees and plants now common in Europe—patriarchs of other gardens

and conservatories. These magnificent old halls, however, are now nearly deserted, and the crowds who formerly listened to Spigelius and Morgagni have forsaken these ancient and spacious apartments, for Paris, Vienna and London.

We next proceeded, by the way of Ferrara, to the old city of Bologna, in former times the second capital of the States of the Church, and the seat of an Archbishopric. The University of Bologna, celebrated as the oldest in Italy, and as the first in which academical degrees were conferred, was long the glory of its citizens. It was founded by Irnerius in 1119, who taught the law with such reputation in his native city, that he acquired the title of "Lucirna Juris." During the troubled period of the twelfth century the fame of this University attracted students from all parts of Europe. I was assured, by the old custode of the University, that for several consecutive years in the thirteenth century the number of students exceeded 18,000, and that at no time for more than one hundred years did it fall below 10,000. In the fourteenth century it acquired lasting celebrity as the first school which practiced dissection of the human body, without which anatomy can be but very imperfectly taught. In more recent times it became renowned for the discovery of galvanism within its walls; and to its credit it may be added, a statue has been erected to the memory of its discoverer. The University buildings, lecture rooms and library are the most spacious and best arranged in many respects of any which I have ever seen. The library rooms are far more spacious and better lighted than the Bodleau library of Oxford, England, or the Biblioteke Imperial in Paris, and contains 140,000 volumes, and 9,000 manuscripts.

This University has been remarkable for an *honor* peculiarly its own—the large number of its learned female professors. In the fourteenth century, Novella d'Andrea, daughter of the celebrated canonist, frequently occupied her father's chair, and it is recorded by Christiana de Piou, that her beauty was so striking that a curtain was drawn before her in order not to distract the attention of the students. Moore says:

"Drawn before her,
Lest, if her charms were seen, the students
Should their young eyes wander o'er her,
And quite forget their jurisprudence."

The modern specimens of strong minded women scarcely require this precaution. The name of Laura Bossi, professor of mathematics, is of more recent date. Still more astonishing to Americans is the instance of Monzolina, who graduated in surgery, and subsequently distinguished herself as professor of anatomy. Her statue is preserved, and may be seen among many of her learned *brethren*, occupying a niche in the Anatomical theatre.

This University, like that of Cordova in Spain, and that in Padua in the north of Italy, has lost its high reputation. Medical studies appear now to have the superiority which is in a great measure attributable to clinical teaching. Tommassins was among the first to teach at the bed-side and deservedly gave a high reputation to its clinical school which has been well maintained by his successors. The city is large enough and the authority liberal enough to afford the students ingress into hospitals of considerable extent for that purpose.

From Bologna we proceeded to Florence where we examined with care the great collection of wax preparations in the museum originally placed there by the Grand Duke. This is perhaps the most extensive as well as one of the most accurate and varied to be found in Europe. There are two or three hospitals, but so far as I could judge indifferently managed, and offering little inducement for the detention of the medical observer. The Italians are a non-progressive people, and this seems no less true in medical matters than in all the affairs of life, and you find yourself constantly reminded of the tardy advancement referred to in Spain in a letter from Cadiz.

Rome next claims a few remarks, not because her medical resources bear any proportion to her inexhaustable treasures in art and in ancient and modern architecture. Indeed Rome forms no exception to the other Italian cities in the present status of the medical profession. Upon visiting her largest hospitals, San Spirits, St. James, St. John, Lotteron, and the military hospitals, they were found badly ventilated and dirty. Little attention was paid to the convalescents in respect to their personal habits, and they seemed filthy and the odor of the wards exceedingly offensive. I was taken by Dr. Fidele, a medical practitioner of distinction in Rome, who has passed much time in London, and speaks the English language fluently, to see the hospital of the "Brothers of

Good Deeds," which forms a most remarkable exception to those already referred to. This institution is founded as a receptacle for the invalid of the better classes, and is a model of cleanliness, ventilation and good order. It is under the direction of the brotherhood who take great pride in the management of their charge. Such lofty ceilings, highly polished floors, luxurious bathing arrangements, elaborate kitchen furniture, and such an extensive laboratory I have never seen in a hospital elsewhere, and should it be my lot to fall ill in the "Eternal City," I should beg to be taken to these spacious apartments and committed to the good offices of the "brothers of good deeds."* They have a large garden in a high state of cultivation, with fountains constantly playing, attached to the institutions in which convalescents may exercise at discretion. It should be added that upon examination of their official reports, I find the per centage of mortality varying in different years from 3½ to only a little more than 8 per cent. This institution forms an honorable and most conspicuous exception to most Italian hospitals. The diseases most prevalent in Rome are miasmatic in their origin and intermittent in character. All are doubtless aware that in the immediate vicinity of this city, thousands of acres are now left uncultivated which once supported a dense population. These plains or *campagnia* are exceedingly fertile, producing in great abundance the most valuable products of this fruitful country. With slight exceptions the "Pontine marshes" only, the campagna is not covered with water, and even these might, without great difficulty, be drained into the sea. So might, in my opinion, by a little Yankee enterprise, this whole country be reclaimed and made immensely valuable, greatly improving the health of the city thereby. It requires to be treated as the prairies of Illinois have been, and the result upon the health of the inhabitants would be analagous. Plough it deeply so as to expose the vegetable mould to the air, drain the marshes, and above all plant trees so as to afford shade, and which by the absorbing surface afforded by their foliage and the wall of inter-

* It ought to be stated for the benefit of all Americans who may chance to require medical services in Rome, that Dr. James B. Gould, who served fifteen years as surgeon in the U. S. Navy, now resides there. Dr. G. is a highly intelligent and courteous gentleman, to whom I am indebted for many kindnesses, and whom I can unhesitatingly commend to the confidence of all my countrymen.

ruption which they supply, neutralize and arrest the malarious exhalations. During a few years and until the soil should be, as it were, regenerated and the forests somewhat grown, it would be well doubtless in reference to the hygiene of the pioneer to build elevated sleeping rooms, and require him to avoid twilight exposure. There can be little question that with proper sanitary measures and precautions the effort to reclaim these immense trackless, houseless wastes would be successful, and if situated near some large American city would be undertaken without hesitation.—They were deserted by the population for more secure mountain homes, at a time when the country was overrun by bandits and barons, scarcely less ferocious. Almost all the walled towns and strong holds of Italy are situated upon the summits of hills or rocks which are approached only with difficulty, and frequently by zigzags cut in the solid rock. Into these defensible, castellated towns, all the inhabitants of the surrounding campagnia were driven during the middle ages by the feudal wars between the different barons and by the roving bands of marauding robbers. Meanwhile the uninhabited low lands became a waste, and the constant decomposition of the annual growth of vegetable matter gave rise to those noxious exhalations which produce the fevers of that country. Re-opening the drains with suitable sub-soil drainage and cultivation of the soil, and the growth of forest trees would then, in my opinion, render the campagnia habitable and greatly improve the healthfulness of Rome which it surrounds.

But, Mr. Editor, I find myself inclined to indulge in a prosaic essay upon the sanitary condition of this ancient country, which would possess little interest to most of your readers, and will therefore spare them the infliction by abruptly subscribing myself,

Truly yours, JAMES P. WHITE.

PRIVATE LETTER FROM PROF. J. P. WHITE.—We publish a portion of a private letter from Prof. White, knowing that many of our readers will be also greatly interested:

SORENTO, June 5th. 1866.

Dear Doctor:—If you publish the accompanying communication for the Journal, look well to the proof. I cannot find time to copy my manuscript, and necessarily write hastily and under many inconveniences. I am writing at this moment in

dorento, upon the sea, near Naples, within sight of Vesuvius, and overlooking the Seautiful Bay of Naples. James is quite ill, and it is now so late, being already betained a fortnight by his illness, that we shall scarcely get to Constantinople as I had hoped. It is doubtful whether war or peace is to prevail in Europe, and the present disturbed state of the country embarrasses the traveler greatly. These and many other reasons which I might enumerate, render it highly probable that I shall shorten my proposed stay abroad, and may be home during the autumn of this year. I hear nothing from you except the letter already mentioned in Florence. My own health improves steadily. I went up Vesuvius last week, a task requiring no little physical strength.

Yours, very truly, J. P. White.

Buffalo, June 29, 1866.

To the Editor of the Buffalo Medical and Surgical Journal:

Dear Sir:—In the report of the proceedings of the Buffalo Medical Association, published in the June number of the Journal, I am made to say that I have "never met with inflammation of the brain with otitis." The statement I made was directly the reverse; neither did I speak of "disease of the base of the *medulla spinalis*," but of the base of the brain. There are several other errors, typographical or clerical, which would not have appeared had an opportunity been afforded me of correcting the proof. I know our reporter will say, that those who desire to have their remarks correctly given should write them out. That is true, but not always practicable. I do not complain of any omissions, but I do feel a little sensitive, when I am represented to have said what I have not uttered.

Yours, respectfully. Thos. F. Rochester.

We are happy to publish the above communication from Dr. Rochester as a correction of the report of his remarks; but the "errors typographical or clerical," are in no way chargable upon the proof reader or publisher of the Journal. The copy is published as furnished and corrected by the Secretary.—Editor.

Transfusion of Blood.—MM. Eulenburgh and Landois have ascertained that animals poisoned by opium may be kept alive by means of a combined transfusion of blood, draining away the poisoned blood, and substituting healthy blood taken from an animal of the same species.

Miscellaneous.

ANNUAL MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

THIRD DAY, MAY 3D.

The Association was called to order at 9 A. M., by the President, after which the announcement of the members of the Committee to memoralize Congress on the publication of the surgical history of the war was made.

Dr. C. C. Cox, of the Committee on Necrology, reported progress, and on motion of Dr. Hibbard, permission was given the reporter to send the report, when ready, to the Committee on publication.

The Death of Prof. Joseph M. Smith, of New York.—Dr. Alfred C. Post offered the following, which was unanimously adopted:

"*Resolved*, That the Association has heard with sincere regret of the death of its late distinguished member, Joseph M. Smith, M. D., of New York.

"*Resolved*, That we cherish his memory as that of a learned and skillful cultivator of medical science, an able and successful teacher and writer, an upright and honorable man, and a patriotic and public-spirited citizen.

"*Resolved*, That the Secretary communicate to the family of the deceased an expression of our sympathy with them in their bereavement."

Dr. C. A. Lee rose to speak to these resolutions, which he did with much feeling. He hardly thought that it was necessary to say anything in regard to the life or character of such an excellent and well beloved man, but as he had been intimately acquainted with him for over thirty years, he did not think it out of place for him to say a few words. After referring in an appropriate manner to his acquaintance with the deceased, he remarked "that a more pure, upright and conscientious man I never knew, particularly with reference to his intercourse with medical men. When I think of the great loss we have sustained in him, I am at a loss to express myself."

Dr. J. S. King, of Natchez, Miss., forwarded a communication to the Association, stating that he was engaged in the compilation of the mortuary and similar statistics of the principal cities and towns of the country, and requesting that physicians would trans-

mit to him such information upon those subjects as they could gather in their respective localities.

The Secretary read a communication from the Dubuque (Iowa) Medical Society, requesting the erasure of the name of Dr. Asa Horr.

On motion of Dr. Jewell, the request was granted.

Dr. Mayburry, on behalf of the Committee on Publication, to whom Dr. Toner's resolutions were referred, reported the following as a substitute, which, on motion, was adopted:

"*Resolved*, That instead of yearly re-printing the list of the members of the American Medical Association, the Committee on Publication be instructed to prepare and print with the Transactions, an alphabetical catalogue tri-ennially, containing a complete list of the permanent members, with their names in full, designating their residences, the year of their admission, the offices they may have held in the Association, and in case of death or resignation, the date thereof."

Dr. Mayburry also presented the following, which, on motion, was referred to the Committee on Ethics:

"*Whereas*, Medical organizations, such as National, State and County Societies, are believed to be absolutely necessary to preserve the honor of the medical profession, and to keep alive social and fraternal feelings among the members thereof, as well as an important means of promoting medical knowledge and elevating the character of the profession; therefore,

"*Resolved*, That it is with sincere regret that we, the members of the Montgomery County Medical Society of Pennsylvania, learn that some honorable members of the faculties of our medical colleges in Philadelphia and elsewhere, have kept aloof from the County Societies on which rest both State and National organizations, thus ranging themselves on the side of those whose unprofessional conduct or low standard of medical attainment, or disregard of medical etiquette, prohibits them from membership in those societies.

"*Resolved*, That as graduates of the University of Pennsylvania, Jefferson Medical College and Pennsylvania Medical College, we have a high regard for the teachers of those institutions, and feel that they owe it to the profession and to our Alma Maters to give their hearty support to medical organizations in general, and especially to the County and State Medical Societies.

"*Resolved*, That although colleges are entitled to representation in the American Medical Association by one or more of their Professors, we are decidedly opposed to any college or any other medical organization being represented by a Professor who is not a member of a County Society.

"*Resolved*, That the Corresponding Secretary of this Society be instructed to report these proceedings to the Philadelphia County Medical Society, and that our delegate be charged to lay them before the American Medical Association at the coming meeting to be held in Baltimore on the first day of May next, as well as before the Medical Society of the State of Pennsylvania at its next meeting, to be held at Kingston, Luzerne county, on the thirteenth day of June ensuing."

W. P. ROBINSON,
President Montgomery Co. (Pa.) Med. Society.
E. SMYSER, Cor. Sec'y.

The Report of the Committee on Ethics—Specialties in Medicine.—Dr. Worthington Hooker offered the majority report, and in the main took the ground adverse to exclusive specialties. He divided up the subject into exclusive and partial specialties. In reference to exclusive specialism, he maintained that local affections were apt to be unduly estimated, to the exclusion, perhaps, of other parts of the system that were of more importance in the production of a particular disease; that diseases cured by a specialty are magnified in their importance; that specialists too frequently undervalue the treatment of diseases by the general practitioner; that there is a temptation to employ undue measures to obtain notoriety; and that he is further tempted to charge unduly large fees. The field of medical practice was so large that the profession was always willing to seek advice from those who had devoted attention to particular subjects; but this should not encourage exclusive specialism. The specialty should be a natural outgrowth from the general practice, and should never be separated from it. If this were so, a full, frank and free intercourse would be had between the specialits and general practitioners. The means availed of by the specialists to bring this fact before the public should be ordinary, and not extraordinary. There should be neither advertisements nor puffs in the newspapers. The professor in a school has been chosen for it by those who are competent to discuss his merits for that position; if he were by himself to place before the public the fact that he is specially skilled in the branch taught by him, he would come under this censure.

The report was well drawn up, and claimed the undivided attention of the members.

Dr. Kennedy, of New York, followed with a minority report,

stating that he would read it in the absence of the writer. The writer believes that the whole tendency in every department of science is towards specialties. Science has been advanced during the last century by this course. Recently this tendency has shown itself in the persons of certain practitioners who resign all general practice, and confine themselves to the specific department they have chosen. No association can object to the advertisement in such cases, unless it is of a mountebank character. The report was signed by H. I. Bowditch.

The subject was then discussed by Drs. H. R. Storer, of Boston, Worthington Hooker, of New Haven, and others; but the hour of eleven having arrived, Dr. W. Marsden, of Quebec, was introduced, and proceeded to address the Convention on the subject of cholera connected with quarantine.

Cholera and Quarantine.—Dr. Marsden, of Quebec, according to previous appointment, made some remarks upon cholera. He commenced by stating his belief in the communicability of cholera, and the efficiency of a rigid quarantine. He has witnessed the first case that occured on the American continent, and since that time has given much attention to the study of the disease. He was now convinced that every case of cholera could be traced to infection, and that the proper soil for the propagation of the disease was found in filth and the neglect of the ordinary sanitary precautions. He believes that all clothing from patients suffering from the disease should be distroyed, and thus be prevented from spreading the disease. He believed that isolation would prevent the appearance of the disease in any community, and related an instance in point which had made such a strong impression upon him that he was caused to think first of his plan of quarantine. It seems that a schoolmistress, in a locality where cholera threatened to make its appearance, consulted the doctor on the best course to pursue. He advised her, as soon as the disease should appear, to isolate the school from the rest of the town, by closing her gates and doors. This was done, and not a single case of cholera occurred within the walls. Dr Marsden next gave the members a detailed account of his system of quarantine.

"1. The cholera quarantine station shall be divided into three separate and distinct sections or departments.

"2. Each of these three sections or departments shall be isolated and seperated from the others by a *cordon* or portion of neutral ground of not less than one hundred feet wide.

"*a.* One of these sections or departments shall be appropriated to the use of the sick, and shall be the hospital department.

"*b.* The next or central section or department shall be devoted to the use of passengers not having had cholera, but from infected vessels.

"*c.* And the third or healthy section or department shall be appropriated to the use of the healthy, who have been removed from the central department, after having performed quarantine there.

"*A.* In the first section or department there shall be three separate and distinct hospitals, besides a convalescent shed or hospital.

"*a.* The one for confirmed cases of cholera to be called the *cholera hospital.*

"*b.* Another for cases of choleraic diarrhœa, or other premonitory symytoms of cholera, to be called the *hospital for cholerine.*

"*c.* The third for all other diseases not cholera or cholerine, but coming from on board infected vessels, or vessels having had cases of cholera on board, to be called the *general hospital.*

"*B.* The next or central section or department, shall be the primary quarantine department, and shall be appropriated to all persons who are not sick, but come from vessels having had cholera on board, and wherein every case on landing shall undergo inspection, washing, cleansing and purifying, both of persons and personal effects. There a quarantine of four days shall be performed, at the end of which period of time all such persons as continue in sound health shall be removed to the final quarantine department, and any that may fall sick or be threatened with sickness during the four days of probation, shall, as soon as detected, be removed to the proper hospital, in the hospital department. There also the healthy inmates shall be removed daily to a new locality, thus occupying four different habitations during their sojourn.

"*C.* The third, or healthy department, shall be the final department, and shall be for all cases coming from the primary quarantine department, after having been cleansed, washed and disinfected, and after having undergone the four days' quarantine; and here a further quarantine of six days shall be performed, (excepting cases coming from the convalescent hospital or shed, hereinafter provided for,) making in all ten days of quarantine, when all persons continuing healthy shall be discharged from quarantine, and be removed from the station. If any premonitory symptoms or other cases of sickness occur in this department during the six days of quarantine, they shall, as soon as discovered, be removed to the proper hospital, in the hospital department.

"No communication shall take place with the hospital depart-

ment, except through the central or primary quarantine department, for which purpose a passage, unfrequented by the persons undergoing quarantine, shall be set apart and reserved."

Dr. Lee moved the thanks of the Association to Dr. Marsden for his interesting and practical address, and the request of the body that he furnish it with a digest of his communication.

Dr. Bond amended, that those papers accompanying the lecture be commended to the city authorities, and the authorities having such matters in charge throughout the country, for their action.

Dr. Jewell thought the matter should be further investigated, and moved its reference to the Section on Hygiene, to meet that afternoon.

The special business of the day was suspended to allow the Committee on Nominations to report.

The Officers for 1866–7.—*President*—H. F. Askee, Delaware.

Vice Presidents—W. K. Bowling, Tenn.; J. C. Hughes, Iowa; H. I. Bowditch, Mass.; Thomas C. Brinsmade, New York.

Permanent Secretary—William B. Atkinson, Pennsylvania.

Treasurer—Casper Wister, Pennsylvania.

Assistant Secretary—W. W. Dawson, Cincinnati.

Committee of Arrangements—Drs. John A. Murphy, James Graham, R. R. McIlvaine, J. P. Walker, —— Unsicker, William T. Brown, William B. Done, Cincinnati.

Committee on Medical Education—Drs. S. D. Gross, D. F. Condie, John Bell, H. J. Bigelow, Charles A. Pope.

Committee on Prize Essays—Drs. Francis Donelson, Md.; Josiah Simpson, U. S. A.; C. C. Cox, Edward Warren, W. C. Van Bibber.

Committee on Publication—Continued.

Committee on Medical Literature—Drs. A. C. Post, Jas. Anderson, H. D. Noyes, T. G. Thomas, Stephen Smith, all of New York.

Committee on American Medical Necrology—Continued, with the additions: Dr. Wood, Delaware, substituted for Dr. Couper; John L. Callender, in place of Dr. Bowling, Tenn.; John Blaine, in place of William Pearson, N. J. The following were added:—Drs. R. D. Arnold, Georgia; Lopez, Alabama; G. Dowell, Texas.

Committee on Climatology and Epidemics—Continued, with the additions: H. Jones, in place of C. L. Allen, Vt. The following were added to the committee: Drs. U. Harris, Ga.; G. Engelman, Mo.; R. Miller, Ala.; Fenner, La.; G. Dowell, Texas.

All special committees are to be selected by the sections to which the subjects relate.

The next place of Meeting.—The place recommended for the next annual meeting of the Association is Cincinnati, Ohio, on the first Tuesday in May.

On motion of Dr. Ordway, of Boston, the report of the committee was adopted.

On motion, the Association went into a committee of the whole to discuss the resolution offered by Dr. Hibberd, having reference to extending the time for the course of study in the different medical colleges.

The whole matter was earnestly discussed by Drs. D. H. Storer, Worthington Hooker, Wright of Ohio, Davis of Ill., and others, and resulted in the passage of the following resolution, offered by the last gentleman:

"*Resolved*, That the Association most earnestly request the medical colleges of the country to hold a convention for thoroughly revising the whole system of medical college instruction for the purpose of establishing more uniformity of time, and a more systematic course of instruction for the whole."

The report of the Committee of the Whole was adopted, and a committee consisting of Drs. Davis, W. Hooker, S. D. Gross, M. B. Wright, and Shattuck, was appointed.

Dr. C. C. Cox read the report "On Rank in the Army," which was referred to the Committee on Publication.

Dr. Cox then offered the following, which was adopted:

"*Resolved*, That the President of this Association bring before the notice of the Military Committees of both Houses of Congress, at as early a period as possible, the present status of medical men in the military service of the United States, and urge upon them that in the army medical bills, under consideration of Congress, the interests of the medical profession shall be so regarded that the medical staff in the service shall, numerically considered, receive the same rank and command as officers in other staffs of the army are justly entitled to."

The committee appointed to act on the foregoing resolution were Drs. D. H. Storer, C. C. Cox, T. Antisell, W. P. Johnson, and C. L. Allen.

On motion of Dr. Cox, the following members, by invitation, were elected: W. D. Stewart, Va.; W. S. Forward, H. W. Stump, and J. L. Chaplain.

A committee was appointed on the subject of Fracture of the Spine, of which Dr. Brown-Séquard was made chairman.

On motion, Drs. A. C. Post, T. Antisell, and J. L. Atlee were added to complete the Committee on Medical Ethics.

Specialties.—On motion, the report of the Committee on Ethics, which had been laid on the table, was called up.

On motion of Dr. Toner, the resolution attached to the minority report was omitted, and the reports were both adopted.

A motion to reconsider next prevailed, and the resolution was added to the minority report and referred as before.

Dr. Homberger, of N. Y., made a request to offer a personal explanation, which, after considerable discussion, confusion and sensational speaking, was granted.

On motion of Dr. Sayre, it was agreed to hold an adjourned meeting at 5 P. M., to discuss the subject of cholera.

A communication from Dr. McGee, "On Periosteal Flap Amputations," and one from Dr. Elsberg, N. Y., "On Diagnosis of Diseases of the Larynx," received, and both referred to the Section on Surgery.

The Association then adjourned until 5 P. M.

THIRD DAY—AFTERNOON SESSION, MAY 4.—At 5 P. M., according to previous adjournment, the Association met, and after being called to order, resolved itself into a Committee of the Whole, choosing Dr. Davis as Chairman.

The subject for discussion as previously announced, was—

Cholera.—Dr. Sayre, of New York, opened the discussion. He considered that the disease could not reach here unless it was brought here; that it could not be generated here. It multiplies its ravages when filth and uncleanliness abound, and is generated in a sandy, level country, beneath a temperature of 128 degrees. There the decomposing animal and vegetable substances originate this peculiar poison. He believed that it accompanied the individual, and that it did not travel by atmospheric power. He thought that the government was responsible for permitting the disease to get into the land. A rigid, proper quarantine, universally adopted by the General Government in combination with the British Provinces, would, in his opinion, prevent its admission to our continent. We had no quarantine, rightly considered. The

disease in 1849 did not originate in Baxter street, New York, but took its origin from an infected person who escaped from quarantine. The cabin passengers escape because the disease has not traveled two hundred feet nor ten feet from the steerage to the cabin. He remarked that he did not believe in mysteries, but wished to understand facts in his own way. If the valuable information that he had received from Dr. Marsden were put into practical application by the General Government, he believed that millions of money and millions of lives would be saved.

Dr. Linton protested against the doctrines advanced that morning and evening. We had medical journals through which we could discuss this subject a long time before the cholera would get here, and a long time before quarantine could prevent its getting here. "Who can believe that cholera could have been prevented from coming here in 1849? I do not believe it is any more contagious than intermittent fever. I am certain that nine-tenths of the physicians of this country are convinced of this fact. I say to the citizens of New York, Baltimore, and Canada, you may have no fears of the cholera. If it comes, it will arise in your midst. Cholera is not a disease!!" He did not believe that there was any truth in the doctrine of contagion. "Cholera breaks out in ships after they are six weeks at sea. I saw a case in St. Louis two months ago. Where did the Asiatics get it from?"

Dr. A. N. Bell, of Brooklyn, N. Y., thought the facts of Dr. Marsden inconsistent with the results of observation. Dr. M. had traced it first from a brig in Liverpool. He did not say that cholera existed in Liverpool at the time. Dr. B. believed cholera could be traced to various places other than Asia. "If cholera is contagious, it takes various roundabout ways of making short journeys. It took an exceedingly roundabout way to the principal cities of Europe. Of the present epidemic, it is said the Mecca pilgrims first had cholera. The evidences I have collected are against strict quarantine. The passengers of the Atlanta were detained at quarantine; no cases occurred among the well passengers after they left the ship. Of all the things likely to originate cholera, none are equal to a crowded, filthy ship. None of the passengers or things of the Atlanta were taken to Ward's Island Hospital. I would protest against the endorsement of any restric-

tions against persons as advised by Dr. Marsden. The detention of well persons can never protect us from any disease. Our protection is in our clean houses, for cholera often leaps over healthy residences. The action of the health officers at the New York quarantine has been fatal to well persons, and has tended to ward off investigation of the places where cholera originated."

Dr. John L. Atlee, of Pa., said that it was difficult to know the facts in large commercial cities. "There are a thousand avenues to such cities as New York and Boston; but in the inland districts we are more likely to reach a better observation of facts. In 1832 I was in the midst of cholera at Lancaster County Hospital, Pennsylvania. I believed that cholera and yellow fever were diseases independent of any idiomiasmatic conditions of the atmosphere. In July or August, 1854, a certain peculiar condition of the atmosphere existed. The water of the Susquehanna was very low, and the water of the basin very filthy, yet there was no cholera. There were, however, some cases of bilious and intermittent fevers. One day a car of emigrants came from Philadelphia to Columbia; two or three of the passengers were ill, and were put upon the platform. Four gentlemen seeing them there at the point of death, conveyed them to a shed. In the next twenty-four or forty-eight hours not one of them was living. In two or three days the cholera prevailed in Columbia. In the Lancaster County Hospital the winds were from the south. We had no cholera. A few days after the cholera broke out in Columbia, an emigrant reached there afflicted with cholerine. Shortly after, two or three cases of cholera existed. The same train conveyed the cholera to Pittsburgh. Passengers came to the vicinity of Lancaster, at a place called Paradise. Their effects were sent to Lancaster, in a high and healthy location. The relative who washed the clothes died of cholera. It is a contagious disease. Why did it not spread? Why did not small-pox spread? There is an atmospheric condition favorable to the development of the disease. The result of observations in Sweden was that it had been conveyed there by the clothes of sailors. I think Dr. Marsden is right and Dr. Sayre is right, and our friends in Philadelphia must come to the same conclusion if they wish to preserve that metropolis from the ravages of the cholera."

Dr. Sayre said the quarantine law of New York, as now enforced, is a disgrace to civilization. Dr. Carnochan, himself, and others saw the cases on Ward's Island, and they all came to the conclusion that they were not cases of cholera.

Dr. A. N. Bell remarked that Dr. George Ford insisted that the Ward's Island cases he treated were those of cholera.

Dr. Sayre then quoted from Dr. Ford's official statement in the annual report of the Commissioners of Emigration, in which he (Dr. F.) stated on page 52, that those "twenty-seven deaths were caused by *diarrhœa* and dysentery." This was the *official* statement of Dr. Ford.

Dr. Marsden said that cholera followed human travel. He adduced other facts to demonstrate its contagious character. It is infectious in person and personal effects. He urged the necessity of guarding against any communication between the infected and the well. Equanimity, cleanliness and temperance were the three great adjuncts to the quarantine.

Dr. Jewell, of Pa., said: "I have been charged with disseminating cholera. I have done all I could to prevent its entrance to Philadelphia. Cleanliness and ventilation will do much to that end. We have been engaged at that during the past winter. I do not believe in quarantining healthy people. That would be disseminating the disease by giving it to the well persons on vessels where cholera existed. We had the epidemic in the summer of 1849 in Philadelphia. It began in four different portions of the city. The first case was at Richmond, the second at Eighth and Spring Garden streets, the third in Moyamensing. These were all in the center of the city, except at Richmond, and remote from the Delaware. The filth produced the disease in Richmond and along the Delaware. In 1832 the first case was on the Schuylkill, in a canal boat that come down from the upland country. There had been no foreign arrival in Philadelphia. It came from a poisoned atmosphere. In 1849 no flies were living. In Wheeling the birds died. The doctrine of contagion is dangerous, and will deprive the sick of assistance. Small-pox does spread, and if we had not vaccination it would spread more than it does. Contagion and infection are distinct. Contagion is the principle communicating the disease from one person to another. It is not so

with cholera. There were no cases of contagion in 1832 or 1849. No vessels arrived with cholera on board. They may have arrived after the disease appeared. I am sorry the resolution was introduced. Next year we shall be better prepared to test the value of Dr. Marsden's information. The poison of cholera will increase rapidly by contact with filth. It is only by purification of the city that cholera can be prevented."

Dr. Lee followed with some brief remarks sustaining the views of Dr. Marsden, and maintaining that it was contagious under certain circumstances. Certain neighborhoods of a very filthy character were not attacked until emigrants came there.

The Committee of the Whole rose, and the Association adjourned without further action.

Entertainment by the Corporate Authorities.—The corporate authorities of the city gave an entertainment to the members this evening, at which were present all the notabilities of the city, including the principal officers and members of the City Councils. The entertainment was prepared in the most generous and munificent manner, and reflected infinite credit on the donors. Between four and five hundred gentlemen were present. The supper was called at nine o'clock. A band of music, stationed in the gallery, initiated the occasion with an appropriate air, and at intervals in the course of the evening performed all the national hymns and songs. After discussing the substantials of the bill of fare, the customary toasts were given by Dr. J. Faris Moore, toast-master, and suitably and eloquently responded to by gentlemen of the municipal government of the city, and the officers and members of the Association, the attentions and laudations of the great assemblage being specially directed to the eloquent response made by Dr. N. Pinckney to the toast, "The Navy of the United States and its medical corps." Other toasts were equally well received, and the interest of the supper was sustained until a late hour in the evening.

Fourth Day, May 4.—The Association was called to order at the appointed time, 9 A. M., by the President, after which the minutes of the previous sessions were read by the Permanent Secretary, Dr. W. B. Atkinson, of Philadelphia.

Dr. Cox was, on motion, accredited as a delegate to the foreign societies.

Dr. Garrish, of N. Y., offered the following, which was adopted:

"*Resolved*, That all the members of this Association urge upon the Legislatures of the various States the great importance of making it compulsory that all marriages, births and deaths be registered."

Medical Rank in the Navy.—The Naval Committee appointed at the last meeting of the Association having failed to report upon the subject of naval medical rank, it was moved that Surgeons William M. Wood, Ninian Pinckney and David Harlan, U. S. N., be appointed a committee to report upon the subject at the next meeting of the Association. Adopted.

Various amendments were next brought up and laid upon the table.

The reports of the various sections were then in turn called for and adopted.

Dr. Holton, of Vt., offered the following, which was unanimously adopted:

"*Whereas*, The author of the Essay, Dr. H. R. Storer, to whom the prize of $100 from this Association was awarded in 1865, refused to receive the amount thus awarded, consequently increasing the resources of the Association to that amount; therefore

"*Resolved*, That the thanks of this Association are hereby tendered to Dr. H. R. Storer for this display of liberality."

The Committee on Ethics appointed to report on the resolutions of the Montgomery (Pa.) Medical Society, recommended a reference of the whole matter to the Medical Society of that State.

Dr. Holton offered the following, which was lost:

"*Resolved*, That at the future meetings of this Association there shall be two general sessions, one in the morning and one in the evening, unless otherwise ordered."

Dr. King, of Pittsburgh, offered the following:

"*Resolved*, That this Association, approving of the system of quarantine proposed by Dr. Marsden, of Canada, as the most effectual means for preventing the introduction of cholera into this country, do earnestly recommend the propriety of its adoption at all our ports of entry, to the favorable consideration of Congress."

The house then on motion, after a little discussion, went into a Committee of the Whole, Dr. Davis being chairman.

Dr. Bell, of Brooklyn, N. Y., was granted the privilege of making a personal explanation of his statements in reference to cases of cholera on Ward's Island, and although he persisted in his orig-

inal assertion, the Chair declared that the whole matter was, he presumed, well understood by the Association, there being only a different scientific opinion entertained by two different parties.

The resolution of Dr. King was then taken up, and after much discussion,

Dr. J. H. Burge, of Brooklyn, offered the following, which, after eliciting many remarks from Drs. Horton, Storer, Post, Lee, Pinckney, (U. S. N.) Marsden and J. Anderson, (N. Y.,) was on motion laid on the table. The following is the resolution:

"*Resolved*, That this Association appoint a committee of ten to memorialize Congress to the following effect: That whereas, in the opinion of many eminent physicians, the system of quarantine recommended by Dr. Marsden, of Canada, for protecting our country from Asiatic cholera, would prove effective; therefore, *Resolved*, that we earnestly petition the government of the United States to make an immediate and ample appropriation, and take all other necessary measures to test the utility of said system."

The Committee of the Whole then rose and reported accordingly.

The President resumed his seat.

Dr. Cox moved that Dr. J. C. Tucker, of Nevada, be a member by invitation. Adopted.

Dr. Stokes offered the following as the report of the Section on Psychology, which was accepted and referred:

"The Section on Psychology unite in requesting that a committee be appointed to make a report at the next annual meeting on Insanity, and ask that Drs. Isaac Ray, of Providence, R. I.; Clement A. Walker, Boston, Mass.; A. B. Cabaniss, Miss.; W. S. Chipley, Ky.; John Fonerden, Md., be appointed said committee. CLEMENT A. WALKER, *Chairman*.

WM. H. STOKES, *Sec'y*.

The report of the Committee of the Whole in reference to the question of quarantine was then adopted by the Association.

Death of Prof. D. L. Magugin, of Iowa.—Dr. Taylor, of Iowa, presented the following:

"*Whereas*, After a long and laborious life devoted to the practice of medical art and promotion of the interests of medical science, Dr. D. L. Magugin, of Iowa, has been called to the final rest of all good men:

"*Resolved*, That the Association, while deeply regretting the loss they have sustained, will ever keep alive the memory of his many virtues and professional worth, and commend the example of his untiring devotion to our common cause.

"*Resolved*, That a copy of these resolutions be furnished his family, with sincere condolence."

Dr. Garrish, of New York, offered the following:

"*Resolved*, That the members of this Association tender their heartfelt thanks to our professional brethren of Baltimore for the liberal, cordial and satisfactory manner in which they have entertained us."

Dr. D. H. Storer offered his report as delegate to the last meeting of Superintendents of American Institutions for the Insane, and presented the following for adoption:

"*Resolved*, That the Association recommend to the several medical and law schools of the country, the establishment of an independent chair of Medical Jurisprudence, to be filled if possible by teachers who have studied both law and medicine; attendance upon one full course of lectures from whom shall be deemed necessary before the medical degree is conferred.

"*Resolved*, That while this Association regrets that the Association of Superintendents of American Asylums for the Insane has not yet thought fit to unite itself more closely with the representative body of American physicians, it still is of opinion that such union is for their mutual and reciprocal advantage, and that it ought to be effected without further delay."

On motion, the above was adopted.

After the transaction of business of minor importance, the Association adjourned *sine die*.

Editorial Department.

Buffalo Medical and Surgical Journal—Completion of Volume Five.

Five years of editorial labor have passed away, leaving its experiences, agreeable and otherwise, for future reflection and improvement. Our journal has lived through the commercial reverses of civil war, standing alone, the only medical periodical in the State, until since the return of peace has again restored the equilibrium of trade, and allowed the sciences and arts to be cultivated under the favoring influences of political quiet and repose. It has been issued regularly, contributed to generously and ably, subscribed for extensively and paid generally in advance. It will thus be seen that the *Buffalo Medical and Surgical Journal* has much for which to

be thankful and little of which to complain. With a deep sense of obligation, it has to thank the authors of original articles, transactions, correspondence, etc., etc., for their assistance in making the volume which closes with the present number, one of the most attractive and valuable of the series. We have thus been able to furnish a medical periodical, more largely original than any other similar publication in this country, and at the same time containing a *resume* of all the most important discoveries and improvements in medicine and surgery in all countries.

It must be confessed that Buffalo as a medical center, is largely undeveloped, and that our resources for observation and experience, though sufficiently large, are yet too unproductive of carefully recorded facts—of well digested, intelligently selected and reported experience. In this respect, however, we are rapidly and certaily improving; time and the wholsome stimulus of ambition will yet achieve for us a more enviable distinction. Medical observation is liable to many fallacies; so frequently are conclusions drawn upon false or inadequate grounds, that most of the recorded experience of the profession through its whole past history is now known to be largely incorrect either in aggregate or detail. Incorrect views of the nature of disease have been entertained by the profession from want of well directed investigations, from want of carefully conducted comparison and experiment.—Great advances have been made, yet no doubt much still remains to be discovered in the field of pathological observation. We have not yet learned all which may be known of the character of disease—its origin, causes, nature, tendency and termination are often undiscovered or misunderstood. Herein is a wide field for cultivation, one which will yield returns in immediate products; and which in the future will crown the honest, faithful worker, with garland wreaths of honor, as original discoverers of truth. With an ability and devotion unequaled in any other department of science the profession have directed their attention to the discovery of truth, in the nature of disease; sometimes almost seeming to forget, that such knowledge is valuable mainly when made subservient to its removal or palliation. The treatment of disease has more often received the attention of the less observing and less educated in the profession, and conclusions have been drawn upon

inadequate and uncertain grounds; though it is true that the most intelligent and distinguished have also lent their names and influence, have doubtless given their confidence to useless, inert and injurious compounds, attributing to them properties which they never contain. A great many remedies have been introduced and recommended, which are of no value whatever, and which should never have been proposed, and never adopted. That the practice of medicine has undergone great change and great improvement within the past few years is the common remark. This is said with considerable self-complacency by the satisfied portion of the profession, who appear to forget that regeneration is still going on more rapidly than ever before, and that our successors will point out the fallacies and absurdities of the present, as we do the inconsistencies of the past.

These remarks are made in this connection with the view to indicate the legitimate aims and objects of medical journalism—to show what will be some of the objects in publishing the *Buffalo Medical and Surgical Journal.* If errors and mistakes are not to be pointed out, by publication of truth, then there is no longer any object in expending time, and means, upon medical periodical publications. To correct error, it is only necessary to place it in comparison with truth, it will then disappear and die; while if it were attacked by open warfare, it might gain adherents and strength, and continue to prevail.

It may be expected that we say a word of the prospects of the coming volume. We are happy again to inform our readers that it will contain such material as is furnished by the profession for publication, and that if our journal ever seems uninstructive and unentertaining, they are themselves earnestly and cordially invited to contribute to its pages the most carefully selected experience at their command—to assist in making the journal what they would have it, full of instruction and interest. We have never complained of want of support, never said that we were left to make a journal ourselves, with only the assistance of a few professional friends. Never intimated that some physicians—near neighbors of ours—read the journal regularly, and always know if it contains any sentiments disagreeable to them, but obtain it from its gratuitous or complimentary distribution, and do not appear as subscribers,

paying three dollars a year, for the support of an enterprise in which they should feel an interest. We have repeatedly said that there were but few physicians in our legitimate circle, who do not cordially and generously sustain the journal; indeed we know of none; and we venture the prediction, that the world and the profession will never know them; there are a *few*, but they will never come to light.

We are happy to announce that the next volume will contain original articles, reports, translations and correspondence from the most distinguished observers, and will also contain selections from the publications of the best authors in all countries. We feel confidence that it will surpass in excellence and value any of its predecessors, since we have promise of increased assistance from our friends, interested in the progress of medical and surgical knowledge.

In conclusion, we desire to express our obligations for past favors and an earnest desire that we may merit their continuance.

Books Reviewed.

Transactions of the Medical Society of the State of New York for the year 1865.

The present volume of the Transactions of the State Medical Society is one of the most interesting of its publications. The articles published, furnish us with additional evidence of the increasing interest of the profession in the prosperity of the State Medical Society, as well as in the advancement of medical science; many of them contain suggestions of practical value, some of which are, perhaps, new to many of the profession.—Among the papers of more especial interest we notice that by Cyrus Ramsay, M. D., LL.D., on "Small-pox, or remarks on Vaccination; the possibility of communicating Syphilis and other diseases through the Vaccine Virus." In tracing the history of vaccination, the writer furnishes us with some interesting statistics regarding the comparative mortality rate from small-pox, prior and subsequent to the introduction of it. It appears that the deaths from this disease in London from the year 1661 to 1684, both inclusive, comprising a period of 24 years, amounted to

28,479, while out of 2,550 cases occurring from the year 1826 to 1844, both inclusive, in the London Small-pox Hospital, 164 or 7 per cent. died. The mortality arising from this disease, in the city of New York, from 1854 to 1864, a period of ten years, was 3,618; the deaths during the same period in Philadelphia, being 1,984, in Boston 206, and in Baltimore 485. He considers the total extermination of small-pox an impossibility, but should vaccination be practiced every seven or ten years, the disease would be so largely diminished, and those that did occur would be of so mild a character as to require but little attention. From the table of re-vaccinations prepared by Dr. Heine, out of 44,009 cases, 20,000 took the disease perfectly, 9,009 imperfectly, and 15,000 not at all.

"The report on the condition of the insane poor in the county poor-houses of New York," by Sylvester D. Willard, of Albany, to the Legislature of the State, represent a condition of wretchedness so appalling in most of these institutions, as to demand immediate attention on part of the different counties. Dr. Willard has made his investigations in the summer, "when the suffering from want of care and clothing is less than in the winter, and consequently it does not show the state of things as bad as they really exist at some seasons of the year. Cleanliness and ablutions are not enforced; indeed very few of the institutions have even the conveniences for bathing, and many of the buildings are inadequately supplied with water. In a few instances the insane are not washed at all, and their persons besmeared with their own excrements are unapproachingly filthy, disgusting and repulsive. In some violent cases the clothing is torn and strewn about the apartments, and the lunatics continue to exist in wretched nakedness, having no clothing, and sleeping upon straw, wet and filthy with excrements, and unchanged for several days. There exists gross inattention to ventilation, and in frequent instances these unfortunates are denied even the fresh air of heaven. The buildings in many instances are but miserable tenements, and were erected without any regard to ventilation. In some of these buildings the insane are kept in cages and cells, dark and prison-like, as if they were convicts, instead of the life-weary, deprived of reason. They sleep on straw like animals, and there are scores

who endure the piercing cold and frost of winter without either shoes or stockings being provided for them." Such is the lamentable condition of institutions called *charitable* and *philanthropic*.

We should be happy to notice some other essays, would space permit our doing so. In conclusion we wish an increased prosperity to an association that embodies amongst its members the *elite* of the medical profession of the State of New York. C. N.

Books and Pamphlets Received.

Medical Electricity—Embracing Electro-Physiology and Electricity as a Therapeutic, with special reference to practical medicine, showing the most approved apparatus, method and rules for the medical uses of Electricity in the treatment of nervous diseases. By Alfred C. Garratt, M. D., Fellow of the Massachusetts Medical Society, member of the American Medical Association. Third edition, revised and illustrated. Philadelphia: J. B. Lippincott & Co., 1866.

Medical Diagnosis with special reference to Practical Medicine. A guide to the knowledge and discrimination of diseases. By J. M. Da Costa, Lecturer on Clinical Medicine, and Physician to the Pennsylvania Hospital; Fellow of the College of Physicians of Philadelphia; Corresponding Member of the New York Pathological Society, etc., etc., illustrated with engravings on wood. Second edition, revised. Philadelphia: J. B. Lippincott & Co., 1866.

Preamble and Resolutions in regard to Cholera, by the New York Academy of Medicine.

The following resolutions have been sent us through the President, Dr. James Anderson, by order of the Academy, for publication. We are much obliged for opportunity to give publicity to the sentiments of this distinguished medical body:

Whereas, The New York Academy of Medicine has endeavored to promote among its own members, and throughout the medical profession, a spirit of exact and practical inquiry into the preventive and remedial treatment of epidemic cholera; therefore, be it

Resolved, That this Academy hereby expresses its confidence in the utility of general and specific hygienic measures as the best means of protection against the pestilential prevalence of cholera in any locality where it makes its appearance; and that the most thorough scavenging, cleansing, and disinfection are absolutely necessary means of averting this pestilence in the cities and populous towns of our country at the present time.

Resolved, That in the judgment of the Academy the medical profession throughout this country should, for all practical purposes, act and advise in accordance with the hypothesis (or the fact) that the cholera diarrhœa and "rice-water discharges" of cholera patients, are capable, in connexion with well-known localizing conditions, of propagating the cholera poison; and that rigidly enforced precautions should be taken in every case of cholera to permanently disinfect or destroy those ejected fluids by means of active chemical agents; also that with the same object in view, the strictest cleanliness of person and premises should be enforced upon all who have charge of the sick; also, that all privies, water-closets, and cesspools should be kept thoroughly under the control of disinfectants.

Resolved, That we regard the nature and causes of cholera infection, so far as the sick or their discharges can propagate it, as being so susceptible of control that there should be no fear or hesitancy in the personal care of the sick and all that pertains to them.

Resolved, That immediate and thorough cleansing and disinfection of all persons, clothing, and things that have been exposed to the discharges or persons of the sick with cholera, constitutes the chief end and object of any rational quarantine or external sanitary police regulation against cholera.

Resolved, That, for the purposes here mentioned, an external sanitary police is desirable in all great maritime and river towns, but that such sanitary regulations need not seriously embarrass commercial intercourse and the interests of trade.

Resolved, That the main source of protection against epidemic cholera at the present time is to be found in the vigilant and effective operation of sanitary measures, municipal, domestic and personal.

Resolved, That the New York Academy of Medicine cordially invites the physicians of every city and village throughout our country to urge the immediate adoption of adequate measures of sanitary protection against the introduction and ravages of cholera, and that to this end we pledge our brethren and the public the hearty and continued coöperation of this Academy.

The above resolutions were unanimously adopted by the Academy.

The Herald of Health for July begins a new volume. Besides its usual variety of matter on physical culture and the cure of disease, this number contains original articles from Horace Greeley, Theodore Tilton, Rev. O. B. Frothingham, W. H. Burleigh, Dr. J. G. Webster, F. Beecher Perkins, G. W. Bungay and

others. It also contains an original letter from Jeremiah Day, Ex. President of Yale College, now 94 years old, which should be read by all who would know how, by good habits, this man has lived so long. This magazine begins its new volume with 16 additional pages. Its motto is: A higher type of manhood, physically, morally and intellectually. $2 a year, 20 cts. a number. The seven numbers of this year, now ready, sent as samples for 70 cents. Address Miller, Wood & Co., 15 Laight street, New York.

Deoderized Tincture of Opium.

We have received from W. H. Peabody, a specimen of deoderized tincture of opium, prepared according to the formula, from the last edition of the United States Dispensatory, in speaking of which it says: "This is an excellent preparation of opium, calculated to supersede various extra-officinal *elixirs* or *solutions*, which have had more or less vogue, based upon the real advantages they afforded in offering liquid preparations of opium exempt from certain noxious ingredients in the crude drug, and in the officinal tinctures, which rendered them so offensive to some constitutions, and in some conditions of disease, as almost to forbid their use. A liquid, watery extract is first made, in which are left behind all the ingredients of opium, soluble in alcohol, and not in water; and this being well shaken with ether, is further deprived of all the principles soluble in this fluid, including narcotina, and the noxious odorous matter, which is probably one of the most offensive and least useful constituents of opium. The ether is then entirely separated, and the residue having been dissolved in water, the solution is filtered and mixed with enough alcohol to preserve it. It may be used in all cases in which laudanum is indicated, but in which it cannot be used in consequence of idiosyncrasy of the patient, or peculiarity in the disease. The dose is the same as that of the officinal tincture of opium."

Legitimate Pharmacy.—We are invited to call the attention of physicians and others to the notice in our advertisement sheet of Walker, Gleason & Co., who propose to deal only in legitimate medicine, and thus to merit the confidence and support of the profession. They have opened a new drug store, in convenient and attractive location, and will doubtless receive the favor they merit.

INDEX TO VOL. V.

ORIGINAL DEPARTMENT.

Action of Medicines on the Blood-vessels, - - - - - - - - - 4–41
Amputations, - - - - - - - - - - - - - - - - - 18
Abstract of the proceedings of the Buffalo Medical Association, - 56, 95, 135, 202, 233, 271, 314, 384, 432, 476.
Arsenic, acute poisoning, by J. R. Lothrop, M. D., - - - - - - 66
Abstract of the proceedings of Medical Society of South-western New York, 140
Address, by Dr. Wm. Gould, - - - - - - - - - - - - - 433
Abscess, Lumbar, - - - - - - - - - - - - - - - - 238
Blood-vessels, Influence of heat on the caliber - - - - - - - - 11
Blood-vessels, effect of medicinal substances on caliber, - - - - - 13
Buffalo General Hospital, Report of, by J. R. Lothrop, M. D., - - - - 17
Blood-poison, - - - - - - - - - - - - - - - - - 221
Brain, gunshot wound of, - - - - - - - - - - - - - 223
Bellevue Medical College, Report of clinical cases, by Frank King, - - 279
Bladder, Extroversion of, - - - - - - - - - - - - - 280
Buffalo General Hospital, clinical cases in, by J. F. Miner, M.D., 137, 236, 275, 311
Cancer, - - - - - - - - - - - - - - - - - - 1
Cancer, in Buffalo General Hospital, - - - - - - - - - - - 18
Cancer of the Glans Penis, - - - - - - - - - - - - - 86
Clinical remarks on Surgical cases in Buffalo General Hospital, by J. F. Miner, M. D., - - - - - - - - 137, 236, 275, 311
Cholera, translated from the German, by T. A. McGraw, M. D., - - - 181
Calculus, Phosphatic, - - - - - - - - - - - - - - - 221
Cranial bones, Syphilitic necrosis, by J. F. Miner, M. D., - - - - 311
Cholera, Action taken by physicians of Buffalo on, - - - - - - 388
Cholera, Contagious, by J. Biglow, M. D., - - - - - - - - 319
Remarks on Cholera, by Thomas F. Rochester, M. D., - - - - - 461
Dysentery, - - - - - - - - - - - - - - - - - 219
Disease of the Eye, - - - - - - - - - - - - - - - 19
Disease of the Foot, - - - - - - - - - - - - - - - 215
Disease of the Heart, - - - - - - - - - - - - - - 216
Eye, Repeated evacuation of aqueous humor, - - - - - - - - 323
Eye, Diseases of, in Buffalo General Hospital, - - - - - - - - 19
Erysipelatous pneumonia, - - - - - - - - - - - - - 126
Exsection of the head of the humerus, by J. F. Miner, M. D., - - 139, 236
Excision of humerus, by J. F. Miner, M. D., - - - - - - - - 236
Excision of the hip joint, by J. F. Miner, M. D., - - - - - - - 276
Exeision of the elbow in Bellevue Hospital College, - - - - - - 280
Extroversion of bladder, - - - - - - - - - - - - - 280
Eclampsia, by M. W. Townsend, M. D., - - - - - - - - - - 316
Eye, optical defects of, and their treatment by the use of spectacles, by A. M. Rosebrugh, M. D., - - - - - - - - - - 255, 326
Fractures in Buffalo General Hospital, - - - - - - - - - - 18
Febrile phenomena, explanation of, - - - - - - - - - - - 50
Febrile phenomena, increased action of Heart, - - - - - - - - 52
Fistula, vesico-vaginal, by S. Barrett M. D., - - - - - - - - - 89
Fibrous tumor of the uterus, - - - - - - - - - - - - 220
Fungus Hæmatodes, - - - - - - - - - - - - - - - 279
Foreign substances simultaneously in the Trachea and Œsophagus, report of a case, by J. F. Miner, M. D., - - - - - - - - - - - 471

Gunshot wounds in Buffalo General Hospital, - - - - - - - - 20
Glans Penis, cancer of, - - - - - - - - - - - - - - 86
Gunshot wound of the brain, - - - - - - - - - - - - 222
Gunshot wound, with removal of the acetabulum and dislocation of femur, by J. F. Miner, M. D., - - - - - - - - - - - - 381
Gunshot wound of Femur, by J. R. Lothrop, M. D., - - - - - - 465
Heart, atrophy of, - - - - - - - - - - - - - - 3
Heart, influence of, on the caliber of blood-vessels, - - - - - - 11
Humerus excision of head, by J. F. Miner, M. D., - - - - - 139, 236
Heart, rupture of, - - - - - - - - - - - - - - 216
Heart, valvular disease of, - - - - - - - - - - - - - 216
Hemiplegia of right side, - - - - - - - - - - - - - 135
Hæmorrhage, Post Partum, by E. W. Jenks, M. D., - - - - - - 225
Hip Joint, excision of, by J. F. Miner, M. D., - - - - - - - 275
Hæmatodes, fungus, - - - - - - - - - - - - - - 279
Hospital Cases, reported by Frank King, M. D., - - - - - - - 440
Hydrophobia, report of case by Dr. Stiles, - - - - - - - - 87
Influence of Heat on caliber of vessels, - - - - - - - - - 11
Impassible stricture, operation, by J. F. Miner M. D., - - - - - 271
Intra-uterine tumor, removal of, - - - - - - - - - - - - 281
Infantile Mortality in New York city, by Cyrus Ramsy, M. D., LL. B., - 475
Kings County Medical Society, transactions of, - - 1, 41, 85, 125, 171, 215
Lothrop, J. R., M. D., report of Buffalo General Hospital, - - - 17
Lothrop, J. R., M. D., case of acute poisoning by arsenic, - - - - - 66
Lothrop, J. R., M. D., case of gunshot wound of femur, - - - - 465
Lumbar abscess, case by J. F. Miner, M. D., - - - - - - - 238, 275
Miner, J. F., M. D., orthopoedic surgery, - - - - - - - - 59, 91
" " " remarks on Talipes, - - - - - - - - - 91
" " " removal bony tumor from shoulder joint - - - - 95
" " " clinical remarks on surgical cases in Buffalo General Hospital - - - - - - - - - - - 137, 236, 275, 311
Miner, J. F., M. D., operation for impassible stricture, - - - - - 271
" " " varicose veins, - - - - - - - - - - 137, 238
" " " excision of the head of humerus, - - - - - 139
" " " two cases of excision of humerus, - - - - - - 236
" " " lumbar abscess, - - - - - - - - 238, 275
" " " excision of hip joint, - - - - - - - - - 276
" " " fatty tumor, removal, - - - - - - - - - 278
" " " syphilitic necrosis of skull, - - - - - - - 311
" " " Trephining, - - - - - - - - - - 311
" " " gunshot wound, removal of acetabulum and dislocation of femur, recovery, - - - - - - - - - - - - 381
Miner, J. F., M. D., Ovariotomy, removal of ovarian tumor weighing twenty pounds, recovery, - - - - - - - - - - - - - 421
Miner, J. F., M. D., Foreign Substances in Trachea and Œsophagus, - 471
Military Surgery, - - - - - - - - - - - - - - - 125
Necrosis of the Skull, - - - - - - - - - - - - - - 311
Orthopoetic Surgery, cases and remarks, - - - - - - - - 59, 91
Otitis, perforating mastoid portion of temporal bone with a trephine, by Dr. J. C. Hutchison, - - - - - - - - - - - - - 85
Optical Defects of the Eye, by A. M. Rosebrugh, M. D., - - - - 255, 326
Opium Poisoning, case, by M. W. Townsend, - - - - - - - - 316
Ovariotomy, removal of ovarian tumor weighing twenty pounds, recovery. 421
Polypus, specimen, by Dr. Colgan, - - - - - - - - - - - 2
Pyæmia, - - - - - - - - - - - - - - - - - 3
Polypus of the Womb, case, by Dr. Hart, - - - - - - - - - 4
Paralysis, cases in Buffalo General Hospital, - - - - - - - - 19
Poisoning by Arsenic, ending in recovery, by J. R. Lothrop, M. D., - - 66
Pneumonia Erysipelatous, by Dr. W. C. Otterson, - - - - - - 125
Phosphatic Calculus, by Dr. Hutchison, - - - - - - - - - 221
Post Partum Hæmorrhage, by E. W. Jenks, M. D., - - - - - - 225

Report of the Buffalo General Hospital, by J. R. Lothrop, M. D., - - 17
Rupture of the Heart, by Dr. Speir. - - - - - - - - - 216
Rosebrugh, A. M., M. D., Optical Defects of the Eye, - - - - 255, 325
Report of a case of the successful removal of a multilocular ovarian tumor weighing twenty pounds, - - - - - - - - - - 421
Rochester, T. F., M. D., Remarks on Cholera, - - - - - - - - 461
Specimen, by Dr. S. F. Speir, - - - - - - - - - - - 3
Small Pox in Cities, causes of its spreading and means for checking it, by J. B. Jones, M. D., - - - - - - - - - - - 171
Specimens presented, by Dr. Stiles, - - - - - - - - - - 215
Stricture, operation for impassible, - - - - - - - - - - 271
Syphilitic Necrosis of the Skull, - - - - - - - - - - 311
Stone in the Male and Female, reported by Frank King, M. D., - - 441
Transactions of the Medical Society of County of Kings, - 1, 41, 85, 125. 171, 215
Testicle, Tuberculosis of, by Dr. Bartlett, - - - - - - - - - 2
Talipes, Remarks on, - - - - - - - - - - - - - 91
Treatment of Wounds, by W. C. Otterson, M. D., - - - - - - 128
Tubercular Disease of the Foot, by Dr. Stiles, - - - - - - - 215
Typhoid Fever, by Dr. Stiles, - - - - - - - - - - - 217
Tumor, Fatty, Removal of, - - - - - - - - - - - - 278
Trephining, - - - - - - - - - - - - - - 311
Uterus, Fibrous Tumor of, by Dr. Hutchison, - - - - - - - 220
Ulcers, case in Buffalo General Hospital, - - - - - - - - 236
Urinary Calculi, cases reported by Frank King, M. D., - - - - - 440
Venereal Disease, cases in Buffalo General Hospital, - - - - - - 20
Vesico-Vaginal Fistula, cases, by S. Barrett, M. D., - - - - - 89
Varicose Veins, cases in Buffalo General Hospital, - - - - 137, 236
Valvular Disease of the Heart, - - - - - - - - - - 216
Womb, Polypus of, by Dr. Hart, - - - - - - - - - - 4
Wounds, Gun-shot, in Buffalo General Hospital, - - - - - - - 20
Wounds, by W. C. Otterson, M. D., - - - - - - - - - - 125
Wounds, Treatment of, - - - - - - - - - - - - 128

CORRESPONDENCE.

Autopsy, report of a case, Ira D. Hopkins, M. D., - - - - - - - 22
Cholera, by J. L. Page, M. D., - - - - - - - - - - - 207
Cholera, by C. A. Lee, M. D., - - - - - - - - - - - 292
Cutaneous Diseases cured without Mercury, by Wm. M. Cornell, M.D., LL.D., 406
Cure of Hydrocele, a case, by H. Rogers, M. D., - - - - - - - 453
Dr. Kempson, Letter from, - - - - - - - - - - - 412
Dr. Marsden's, Plan of Quarantine, - - - - - - - - - - 293
Military Surgery, by O. D. Norton, - - - - - - - - - - 206
Quarantine, - - - - - - - - - - - - - - 293
Rochester, T. F., M. D., Letter from, - - - - - - - - - - 484
Suppression of Urine, by I. D. Hopkins, M. D., - - - - - - - - 345
White, Prof. James P., Correspondence while on a tour in Europe, 341, 399, 450, 477.

SUMMARY.

Amorphous Oxide of Mercury, yellow, - - - - - - - - - - 23
Cerebro-Spinal Meningitis, by S. Wilks, M. D., - - - - - - - - 25
Circulation, A New, by D. B. Jones, M. D., - - - - - - - - - 77
Diphtheria, Lecture on, by E. H. Greenhow, M. D., - - - - - - 100
Epidemic at Maplewood Ladies' Institute, - - - - - - - - 202
Fibroid Tumor, Recurrent, by F. H. Morris, M. D., - - - - - - 26
Fever, Treatment of, by Dr. Gull, - - - - - - - - - - 74
Hydrocele, Treatment of, by J. C. Agnis, M. D., - - - - - - 25
Hypodermic, Injection of Medicine, by C. Hunter, - - - - - - 101
Near-Sightedness a Disease, - - - - - - - - - - - 77
Opthalmic Disease, by R. B. Carter, F. R. C. S., - - - - - - - 75

Phthisis and Uterine Disease, by J. H. Bennett, M. D., - - - - - 75
Typhus Fever, by Dr. Gairdner, - - - - - - - - - - - 26
Tetanus, Pathology of, by J. L. Clark, F. R. S., - - - - - - 99

MISCELLANEOUS DEPARTMENT.

Aneurism, Case of, - - - - - - - - - - - - - - 36
Atropia and Morphia, Antagonism of, by Drs. Mitchell, Kean and Morehouse, 78
American Medical Association, Delagates to, - - - - - - - - 291
Albumen in Urine, Detecting, - - - - - - - - - - - 391
Amenorrhœa and Dysmenorrhœa Apiol, In Treating, - - - - - 394
American Medical Association, Annual Meeting, - - - - - - 185, 442
Brinsmade Prize, - - - - - - - - - - - - - 291
Bromide of Potassium in Epilepsy, - - - - - - - - - - 114
Bromide of Potassum, experimental investigation, - - - - - - 245
Bifid Uterus and Double Vagina, - - - - - - - - - - 351
Buffalo Medical and Surgical Journal, volume five, - - - - - - 499
Blood, Transfusion of, - - - - - - - - - - - - - 484
Chloroform in Neuralgia and Muscular Rheumatism, - - - - - - 396
Cholera Infantum, - - - - - - - - - - - - - 352
Cholera Lectures, by Alonzo Clark, M. D., New York, - - - - - - 347
Cerebro-Spinal Meningitis without Spotted Fever, - - - - - - 27
Cholera—How to Mitigate it, - - - - - - - - - - - - 153
Croup Treatment by Inhalation of Lime Water, - - - - - - - 155
Cow, Vaccine Matter from, - - - - - - - - - - - - 240
Chloroform in Convulsions, internal use, - - - - - - - - - 244
Cattle Disease, - - - - - - - - - - - - - - 479
Diabetes, Diet in, by E. Smith, M. D., - - - - - - - - - 79
Dysmenorrdœa associated with a peculiar form of the Cervi, by Robert Barnes, - - - - - - - - - - - - - - - 104
Diphtheria, circular from Dr. Norton, - - - - - - - - - - 116
Death of Professor T. Childs, - - - - - - - - - - - 117
Disinfecting and Deoderising, new method, - - - - - - - - 156
Dysmenorrhœa, Employment of Apiol in, - - - - - - - - - 394
Diseased Meat, - - - - - - - - - - - - - - 346
Epilepsy treated by Promide of Potassium, - - - - - - - - - 114
Experimental Investigations on Promide of Potassium, - - - - - 245
Fifty-ninth Annual Meeting of the New York State Medical Society, - - 283
Fever, Typhoid, in Pigs, - - - - - - - - - - - - 149
Gun-shot Wounds, Treatment of, - - - - - - - - - - - 282
Hick's U. S. Army Hospital, - - - - - - - - - - - 449
Herald of Health, - - - - - - - - - - - - - 505
Insanity, Puerperal, - - - - - - - - - - - - - 29
Injury, Severe Case of, - - - - - - - - - - - - 31
Lime Water, Inhalation of, in Croup, - - - - - - - - - - 155
Labor, Mortality of Child-bed as affected by number, - - - - - 243
Lectures on Cholera, by Prof. A. Clark, - - - - - - - - - 347
Local Injections in Neuralgia, - - - - - - - - - - - 398
Meningitis, Cerebro-Spinal, without Spotted Fever, - - - - - - 27
Menstruation, Treatment of Painful, - - - - - - - - - - 144
Merritt Cash Prize, - - - - - - - - - - - - - 290
Mortality in New York city, by Cyrus Ramsy, M. D., - - - - - 475
Murrain in Palestine, - - - - - - - - - - - - 464
Non-transmission of Syphilis by Vaccination, - - - - - - - 117
New York Academy of Medicine on Cholera, - - - - - - - - 504
Paralysis of Hand and Fore-arm from Smoking, - - - - - - - 397
Puerperal Insanity, - - - - - - - - - - - - - 29
Proper Diet in Diabetes, - - - - - - - - - - - - - 79
Purulent Infection, - - - - - - - - - - - - - - 80
Purgatives, Habitual Use of, - - - - - - - - - - - - 115
Syphilization, - - - - - - - - - - - - - - - 109

Sterile Condition, Influence of Uterine Displacement, - - - - - 147
Smoking, Paralysis from, - - - - - - - - - - - - - 397
Transmission of Syphilis by Vaccination, - - - - - - - - 117
Uterine Displacement and Sterility, - - - - - - - - - - 147
University of Pennsylvania, - - - - - - - - - - - 159
Vaccine Matter from the Cow, - - - - - - - - - - - 240
Ventilation of Hospitals, - - - - - - - - - - - - 241
Vagina, a Case of Double, - - - - - - - - - - - - 351
Will, Dr. Mott's, - - - - - - - - - - - - - 235

EDITORIAL DEPARTMENT.

American Medical Association, - - - - - - - - - - 40, 307
American Medical Association, Transactions of, - - - - - - 84, 124
Asiatic Cholera, - - - - - - - - - - - - - - 160
Artificial Arms and Legs, - - - - - - - - - - - - 114
Atlantic Monthly, - - - - - - - - - - - - - 420
American Educational Monthly, - - - - - - - - - - - 309
Atlantic Medical and Surgical Journal, - - - - - - - - - 458
Bellevue Hospital, case of Leprosy, - - - - - - - - - - 34
Bee Sting, Death from, - - - - - - - - - - - - 36
Bellevue Hospital Medical College, Lectures in, - - - - - - - 124
Berkshire Medical College Commencement, - - - - - - - 169
Blatchford, Dr. T, W., Death of, - - - - - - - - - - 251
Buffalo Superior Court, - - - - - - - - - - - - 356
Buffalo Medical College Commencement, - - - - - - - - - 371
Braithwaite's Retrospect, Appendix to, - - - - - - - - - 420
Braithwaite's Retrospect, - - - - - - - - - - - - 420
Biography, American Medical, - - - - - - - - - - - 459
Cholera, Reasons for fearing an Epidemic, - - - - - - - - 118
Cholera, Communicability of, and Prevention, - - - - - - - 298
Cholera Conference, - - - - - - - - - - - - - 308
Court of Buffalo. - - - - - - - - - - - - - 356
Correction, - - - - - - - - - - - - - - - 460
Detroit Preparatory School of Medicine, - - - - - - - - - 114
Dispensatory in Buffalo, - - - - - - - - - - - - - 254
Epidemic of Cholera, Reasons for Fearing, - - - - - - - - 118
Expectant Medicine, Medical Prize, - - - - - - - - 169, 209
Erie County Medical Society, - - - - - - - - - 254, 460
Ether, - - - - - - - - - - - - - - - - 459
Flint, Jr., Austin, Physiology by, - - - - - - - - - - 36
Fœtus, Retention of Urine in, - - - - - - - - - - - 310
Gail Hamilton, - - - - - - - - - - - - - - 460
Human Milk, Substitute for, - - - - - - - - - - - - 380
Hamilton, Prof. Frank H., new edition of his work on Fractures and Dislocations, - - - - - - - - - - - - - - - 458
Hypodermic Injection, Danger of, - - - - - - - - - - 459
Intra-Uterine Variola, - - - - - - - - - - - - - 310
Journals, New, - - - - - - - - - - - - - - 252
Journals, New Medical, - - - - - - - - - 252, 306, 379, 458
Kiss, Syphilis communicated by, - - - - - - - - - - - 460
Leprosy, Report of a case, - - - - - - - - - - - - 34
Lectures in Buffalo, - - - - - - - - - - - - - 123
Lectures in Bellevue Hospital Medical College, - - - - - - - 124
Legal Liabilities of Physicians and Surgeons, - - - - - - - 353
Literary Journal, New, - - - - - - - - - - - - - 309
Miami Medical College, - - - - - - - - - - - - - 124
Medical and Surgical Monthly, - - - - - - - - - - - 168
Medical Record, - - - - - - - - - - - - - - 310
Ovarian Tumor, - - - - - - - - - - - - - - 84
Os Uteri, Division of, - - - - - - - - - - - - - 40
Opium deoderized, Tinct., - - - - - - - - - - - - 506

Premium offered, - - - - - - - - - - - - - 124
Physicians' visiting list, - - - - - - - - - - - - - 168
Personal, - - - - - - - - - - - - - - 253
Prevention and communicability of cholera, - - - - - - - - - 298
Pharmacy, Legitimate, - - - - - - - - - - - 506
Pathological specimens, reception of, - - - - - - - - - - 379
Reasons for fearing cholera, - - - - - - - - - - - 118
Richmond Medical Journal, - - - - - - - - - - - 168
Retention of urine in the fœtus - - - - - - - - - - - 315
Stimulants in disease, - - - - - - - - - - - - - 32
Sub-cutaneous injections, danger from, - - - - - - - - - 170
Successful removal of uterus and both ovaries by abdominal section, - 254
Substitutes for human milk, - - - - - - - - - - - 308
Typhoid Fever in Western New York, its increase and prevalence, - - 81
Transactions of America Medical Association, - - - - - - 84, 124
University of Buffalo commencement, - - - - - - - 301, 371
Variola intro uterine, - - - - - - - - - - - - 310
Valedictory address by E. N. B. Smith, M. D., - - - - - - - 371

BOOKS REVIEWED.

Annual address before the Medical Society of the county of Oneida, by C. B. Coventry, M. D., - - - - - - - - - - - - - 162
Contributions to practical surgery, by W. H Van Buren, - - - - - 39
Circular Mo. 6, - - - - - - - - - - - - - - 374
Disease, injuries, and malformations of the rectum and anus, by T. J. Ashton, M. D., - - - - - - - - - - - - - - 305
Essentials of Materia Medica and Therapeutics, by Alfred Garrod, M. D., F. R. S. - - - - - - - - - - - - - - 83
Hand-book of skin diseases, by Thomas Hillier. M. D., - - - - - 38
Lectures on Inflammation, by John H. Packard, M. D., - - - - - 161
Lectures on Diseases of the Stomach, by Wm. Brinton, F. R. S., - - 213
Laryngoscope, in diseases of the throat, by M. D. McKenzie, M. D., - - 304
Materia Medica, for the use of students, by J. B. Biddle, M. D., - - 250
Obscure diseases of the brain, by F. Winslow, M. D., D. C. L., - - - 454
Practice of Medicine and Surgery applied to the diseases and accidents incident to women, by, W. H. Byford, A. M., M. D., - - - - - 212
Pressure in the treatment of Gonorrhœa and Purulent Ophthalmia, by Joseph L. Hildreth, U. S. V., - - - - - - - - - - - 249
Practice of Medicine, by Thomas H. Tanner, M. D., F. L. S., - - - 302
Principles of Surgery, by James Syme, F. R. S. E. - - - - - - 303
Principles and Practice of Medicine, by Austin Flint, M. D., - - - 413
Physiology of Man, by Austin Flint, Jr., M. D., - - - - - - 417
Renewal of Life, clinical lectures by Thomas King Chambers, M. D.,- - - 37
Researches on the medical properties of nitrous oxide, by Geo. J. Ziegler, M.D., 121
Rhinoscopy and Laryngoscopy, by Dr. F. Shmelder, - - - - - - 416
Sleep and Insomnia, by W. A. Hammond, M. D., - - - - - - 39
Student's book of Cutaneous Medicine and Disease of the Skin, by Erastus Wilson, F. R. S., - - - - - - - - - - - - 247
Stimulants and Narcotics—their mutual relation, &c., by F. B. Austin, M. D., M. R. C. P., - - - - - - - - - - - - - 248
Specialties in Medicine, by Henry D. Noyes, M. D., - - - - - - 250
Transactions of the American Medical Association, volume XVI., - - 456
Transactions of the Medical Society of the State of New York, for 1866 - 502
Wakefulness, with lectures on the Philosophy of Sleep, by W. A. Hammond, M., D., - - - - - - - - - - - - - - 378
West on Diseases of Women, - - - - - - - - - - - - 457
Books received, - - - - 40, 123, 169, 213, 215, 306, 378, 419, 458, 504

p. 247-248. Page found clipped Aug. 11, 1966 by PLS.